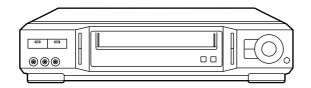
# SHARP SERVICE MANUAL

SY9S8VC-H800X

# **VHS VIDEO CASSETTE RECORDER**



# MODEL VC-H800X

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified be used.

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### PRECAUTIONS IN PART REPLACEMENT

When servicing the unit with power on, be careful to the section marked white all over.

This is the primary power circuit which is live.

When checking the soldering side in the tape travel mode, make sure first that the tape has been loaded and then turn over the PWB with due care to the primary power circuit.

Make readjustment, if needed after replacement of part, with the mechanism and its PWB in position in the main frame.

### (1) Start and end sensors: Q701 and Q702

Insert the sensor's projection deep into the upper hole of the holder. Referring to the PWB, fix the sensors tight enough.

# (2) Photocoupler: IC902

Refer to the symbol on the PWB and the anode marking of the part.

### (3) Cam switches A and B: D708 and D709.

Adjust the notch of the part to the white marker of the symbol on the PWB. Do not allow any looseness.

### (4) Take-up and supply sensors: D707 and D706.

Be careful not to confuse the setting direction of the parts in reference to the symbols on the PWB. Do not allow any looseness.

### 1. SPECIFICATIONS

Format: VHS PAL/NTSC standard

Video recording system: Rotary, slant azimuth two heads helical scan system

Video signal: PAL Colour or monochrome (CCiR system B/G) signals Recording/playing time: 240 min max. with SHARP E-240 tape (PAL: SP mode)

480 min max. with SHARP E-240 tape (PAL: LP mode) 160 min max. with SHARP T-160 tape (NTSC: SP mode) 480 min max. with SHARP T-160 tape (NTSC: EP mode)

Tape width: 12.7mm

Tape speed: 23.39 mm/s (PAL: SP mode)

11.70 mm/s (PAL: LP mode) 33.35 mm/s (NTSC: SP mode)

16.67 mm/s (NTSC: LP mode) (Playback only)

11.12 mm/s (NTSC: EP mode)

Antenna: 75 ohm unbalanced

Receiving channel: VHF Channel AU0 - AU12, UHF Channel AU28 - AU69 RF converter output signal: UHF Channel AU28 - AU69 Adjustable preset to AU37

Power requirement: 240V/50Hz

Power consumption: Approx. 19W (Approx 1W Max at low power mode)

Operating temperature: 5°C to 40°C Storage temperature: -20°C to 55°C

Weight: Approx. 3.9 kg

Dimensions: 430 mm (W) x 281 mm (D) x 92 mm (H)

**VIDEO** 

Input: 1.0 Vp-p, 75 ohm Output: 1.0 Vp-p, 75 ohm S/N ratio: 45 dB (PAL-SP)

Horizontal resolution: 250 lines (PAL-SP)

AUDIO 0 dBs = 0.775 Vrms Input: Line 1: -8 dBs/47k ohm Line 2: -8 dBs/47k ohm

Output: Line -8 dBs/4/k oh

S/N ratio: 43 dB (SP mode)

Frequency responce: 80 Hz ~ 10 kHz (SP mode)

80Hz ~ 5 kHz (LP/EP mode)

Hi-Fi dynamic range: 85dB min. Hi-Fi Wow and flutter 0.005% max.

Hi-Fi Frequency responce: 20 Hz ~ 20 kHz (SP mode)

Hi-Fi distortion: 0.5% max. Hi-Fi Crosstalk: 55dB min.

Accessories included: 75 ohm coaxial cable

Operation manual Infrared remote control

**Battery** 

As part of our policy of continuous improvement, we reserve the right to alter design and specifications without notice.

Note: The antenna must correspond to the new standard DIN 45325 (IEC 169 - 2) for combined UHF/VHF antenna with 75 ohm connector.

# 2. DISASSEMBLY AND REASSEMBLY 2-1 DISASSEMBLY OF MAJOR BLOCKS

**TOP CABINET** : Remove 4 screws (1).

: Remove 2 screws (2) and 7 clips **FRONT PANEL** 

(3). Remove button (4).

**JOG SWITCH** : Remove 3 screws (17).

: Remove 1 screw (5) and 1 hook (6). **JACK PWB** : Remove 1 connector (7) and 3 hooks **FRONT PWB** 

**OPERATION PWB**: Remove 1connector (9) and 3 hooks

: Remove 3 screws (1). **PWB HOLDER** 

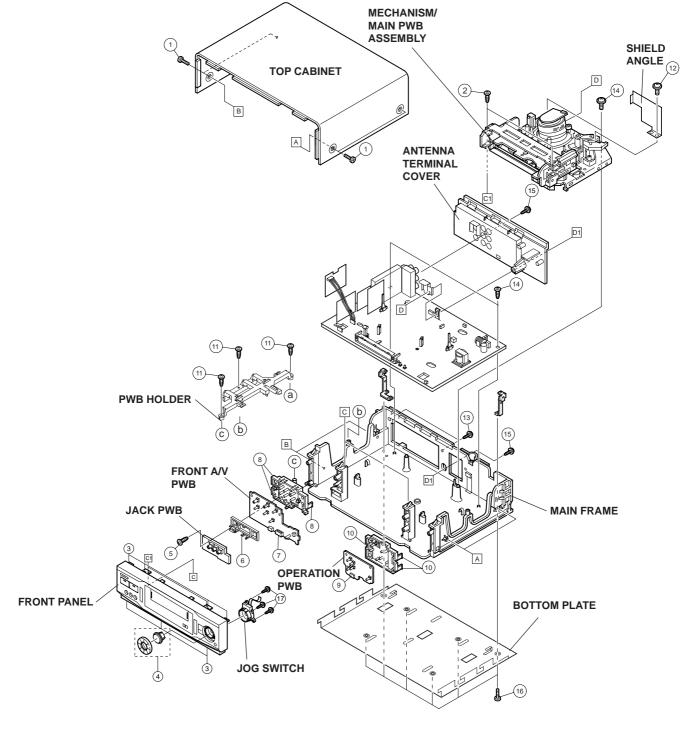
: Remove 1 screw 12 and Shield Angle. MECHANISM/ **MAIN PWB UNIT** Remove 2 screws (13) and 4 screws

**ANTENNA** : Remove 2 Screws (15).

**TERMINAL** 

COVER

BOTTOM PLATE: Remove 6 screw (16).

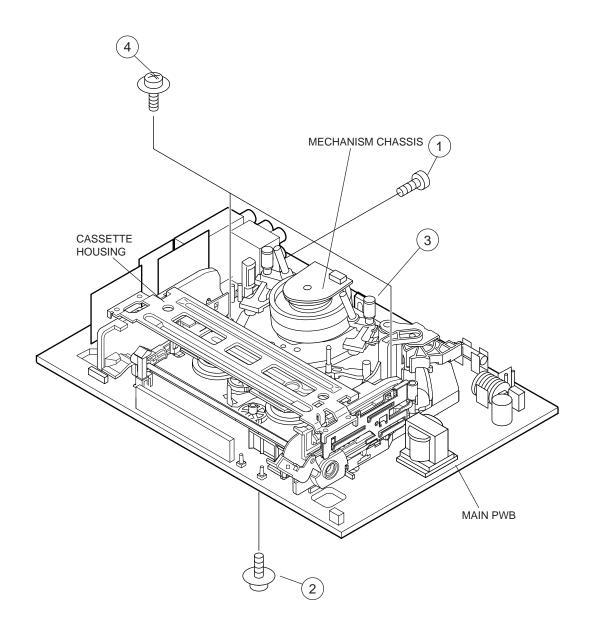


### 2-2 DISASSEMBLING THE MECHANISM/MAIN PWB ASSEMBLY

- 1. When removing the mechanism from the main PWB, remove the antenna cover 1 screw ①, and remove the antenna cover.
  - Remove the PWB bottom plate 1 screw ②. Remove the FFC cable (AA, AD, AH) ③ which con-

necting the PWB and the mechanism.

- Take out vertically the mechanism so that it does not damage the adjacent parts.
- 2. Removing the mechanism and cassette housing. Remove 2 screws ④ fixing the cassette housing to the mechanism, and remove the cassette housing.



#### 2-3 CARES WHEN REASSEMBLING

#### **INSTALLING THE CASSETTE HOUSING**

When the cassette housing is installed on the mechanism, the initial setting is essential condition.

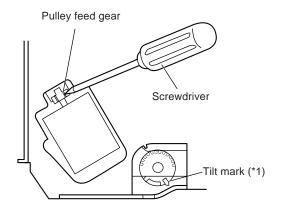
There are two initial setting methods, namely electrical and mechanical.

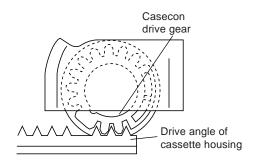
#### 1. Electrical initial setting

So as to perform initial setting of mechanism execute the Step 1 of Installation of cassette housing. After ascertaining the return to the initial setting position (\*1) install the cassette housing. (Conditions: When mechanism and PWB have been installed)

#### 2. Mechanical initial setting

Feed the pulley feed gear of loading motor with screw driver. After ascertaining the return to the initial set position (\*1) install the cassette housing in the specified position. (This method is applied only for the mechanism.)



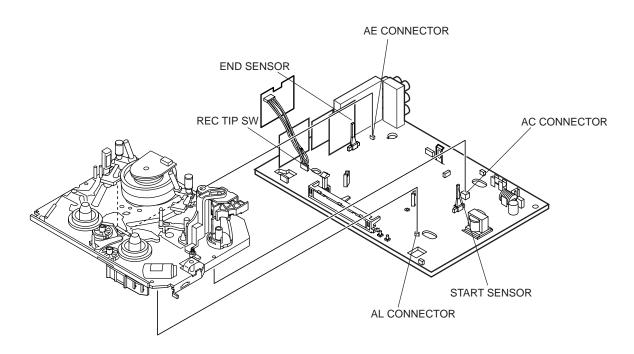


#### **INSTALLING THE MECHANISM ON PWB**

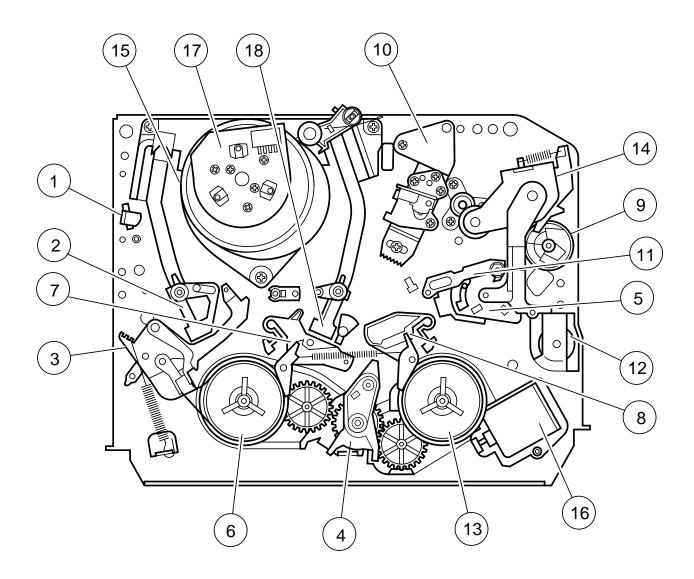
Lower vertically the mechanism, paying attention to the mechanism edge, and install the mechanism with due care so that the parts are not damaged. So as to fix the mechanism to the main PWB install two housings. (Fit the antenna cover to one of them. For other, fix the vicinity of loading motor and solder joint side of main PWB.) Connect again the FFC cable (AA-MH, AD-ME, AH-MH) between the mechanism and the main PWB.

#### PARTS WHICH NEED PARTICULAR CARE

When installing the mechanism chassis on the PWB unit, take care so as to prevent deformation due to contact of mechanism chassis with REC TIP SW.

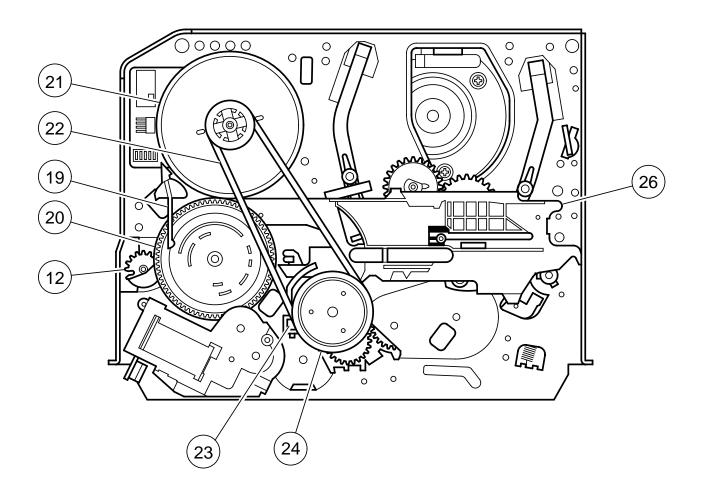


# 3. FUNCTION OF MAJOR MECHANICAL PARTS (TOP VIEW)



No.	Function	No.	Function
1	Full erase head	11	Reverse guide lever ass'y
2	Supply pole base ass'y	12	Casecon drive gear
3	Tension arm ass'y	13	Take-up reel disk
4	Idler wheel ass'y	14	Pinch roller lever ass'y
5	Pinch drive lever ass'y	15	Drum ass'y
6	Supply reel disk	16	Loading motor
7	Supply main brake ass'y	17	Drum motor
8	Take-up main brake ass'y	18	Take-up pole base ass'y
9	Pinch drive cam		
10	A/C Head ass'y		

# **FUNCTION OF MAJOR MECHANICAL PARTS (BOTTOM VIEW)**



No.	Function	No.	Function
19	Slow brake	23	Clutch lever
20	Master cam	24	Limiter pulley ass'y
21	Capstan D.D. motor	12	Casecon drive gear
22	Reel belt	26	Shifter

# 4. ADJUSTMENT, REPLACEMENT AND ASSEMBLY OF MECHANICAL UNITS

The explanation given below relates to the on-site general service (field service) but it does not relates to the adjustment and replacement which need high-grade equipment, jigs and skill. For example, the drum assembling, replacement and adjustment service must be performed by the person who have finished the technical courses.

### 4-1 MECHANISM CONFIRMATION ADJUSTMENT JIG

So as to perform completely the mechanism adjustment prepare the following special jigs. So as to maintain the initial performance of the machine the maintenance and check are necessary. Utmost care must be taken so that the tape is not damaged. If adjustment needs any jig, be sure to use the required jig.

No.	Jig Item	Part No.	Code	Configuration	Remarks
1.	Torque Cassette Meter	JiGVHT-063	CZ		This cassette torque meter is used for checking and adjusting the torque of take-up for measuring tape back tension.
	Tarawa Cawaa	JiGTG0090	СМ		
2.	Torque Gauge	JiGTG1200	CN		These Jigs are used for checking and adjusting the torque of take-up
3.	Torque Gauge Head	JiGTH0006	AW		and supply reel disks.
4.	Torque Driver	JiGTD1200	СВ		When fixing any part to the threaded hole using resin with screw, use the jig. (Specified torque 5 kg)
	Master Plane Jig and	JiGRH0002	BR	$\Diamond$	These Jigs are used for checking
5.	Reel Disk Height Adjusting Jig	JiGMP0001	BY	6.0	and adjusting the reel disk height.
	T	JiGSG2000	BS		There are two gauges used for the
6.	Tension Gauge	JiGSG0300	BF		tension measurements, 300 g and 2.0kg.
7.	Pinch pressing force measuring jig	JiGADP003	вк		This Jig is used with the tension gauge. Rotary transformer clearance adjusting jig.
9.	Reverse guide height adjusting box driver	JiGDRiVER11055	AR		This Jig is used for height adjustment of the reverse guide (for reverse guide height adjustment).
10.	Alignment Tape	VROCPSV	СК		
11.	Guide roller height adjustment drive	JiGDRiVERH-4	AP		This screwdriver is used for adjusting the guide roller height.
12.	X value adjustment gear type screw driver	JiGDRiVER-6	ВМ		For X value adjustment
13.	Reverse Guide Height Adjusting Jig	JiGRVGH-F18	BU	T	This Jig is used for height adjustment of the reverse guide.

#### MAINTENANCE CHECK ITEMS AND EXECUTION TIME

Perform the maintenance with the regular intervals as follows so as to maintain the quality of machine.

Maintained Parts	500 hrs.	1000 hrs.	1500 hrs.	2000 hrs.	Possible symptom encountered	Remarks	
Guide roller ass'y						Abnormal rotation or significant vibration requires replacement.	
Sup guide shaft					Lateral noises Head		
Reverse guide					occasionally blocked	Clean tape contact part with the specified cleaning liquid.	
Slant pole on pole base							
Full erase head				0	color and beating		
A/C head				0	Small sound or sound distortion		
Upper and lower drum ass'y		00	00	00	Poor S/N ratio, no color Poor flatness of the envelope with alignment tape  Clean tape contact area was specified cleaning liquid.		
Capstan D.D. motor					No tape running, uneven color		
Pinch roller					No tape running, tape slack	Clean rubber and rubber contact	
Reel belt				0	No tape running, tape slack, no fast forward/ rewind motion		
Tension band ass'y				0	Screen swaying		
Loading motor				0	Cassette not loaded or unloaded		
Idler ass'y				0	No tape running, tape		
Limiter pulley					slack		
Supply/take-up main brake levers				0	Tape slack		
AHC (Automatic Head Cleaner)		0		0		Replace the roller of the cleaner when it wears down. Just change the AHC roller assembly for new one.	

NOTE ○ : Part replacement.□ : Cleaning ∴ : Apply grease <Specified> Cleaning liquid Industrial ethyl alcohol

\* This mechanism does not need electric adjustment with variable resistor. Check parts. If any deviation is found, clean or replace parts.

### Video head cleaning procedure

1. Apply one drop of cleaning liquid to the cleaning paper with the baby oiler.

2. Gently press the cleaning paper against the video head to fix your finger, and move the upper drum so that each head is passed to and from 5 times (do not move the cleaning paper).

3. Wipe with the dry cleaning paper.

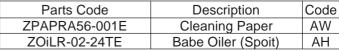
#### Notes:

- Use the commercially available ethanol of Class 1 as cleaning liquid.
- Since the video head may be damaged, do not move up and down the cleaning paper.
- Whenever the video head is cleaned, replace the cleaning paper.
- Do not apply this procedure for the parts other than the video head.

Rotate the upper drum with one hand. Gently press the cleaning paper to fix with your finger, and rotate the

upper drum to clean.

Move to and from 5 times for each head. (Do not move the cleaning paper.)



# REMOVING AND INSTALLING THE CASSETTE HOUSING

#### Removal

- 1. In the cassette removing mode, remove the cassette.
- 2. Unplug the power cord.
- 3. Remove in the following numerical order.
  - a) Remove two screws 1.
  - b) Slide and pull up the cassette housing control.

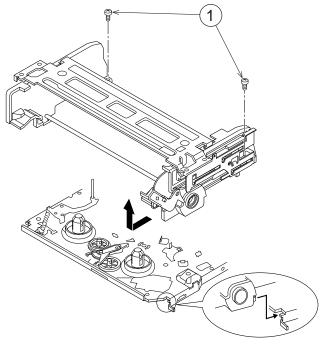


Figure 4-1.

#### Reassembly

Before installing the cassette housing control, short-circuit TP801 provided at the center (when facing to the main PWB), press the eject button. The casecon drive gear turns and stops when the positioning mark appears. Engage two teeth of casecon drive gear with the three teeth of casecon drive angle gear, and set on the mechanism chassis as shown below.

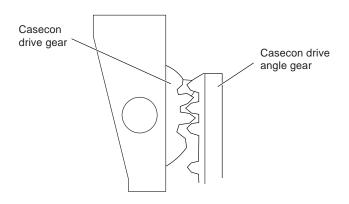


Figure 4-2.

2. Install in the reverse order of removal.

#### Notes:

- 1. When fitting the S/E sensor holder to the cassette controller frame L/R, take care.
- 2. Misengagement of teeth of casecon drive gear and drive angle gear causes malfunction. (The cassette cannot be set, load and ejection are repeated).
- In the case when you use the magnet screw driver, never approach the magnet driver to the A/C head, FE head, and drum.
- 4. When installing or removing, take care so that the cassette housing control and tool do not contact the guide pin or drum.
- 5. After installing the cassette housing control once perform cassette loading operation.

# TO RUN A TAPE WITHOUT THE CASSETTE HOUSING CONTROL ASSEMBLY

- 1. Remove the full-surface panel.
- 2. Short-circuit TP801.
- 3. Plug in the power cord.
- Turn off the power switch.
   (The pole bases move into U.L.position.)
- 5. Open the lid of a cassette tape by hand.
- 6. Hold the lid with two pieces of vinyl tape.
- 7. Set the cassette tape in the mechanism chassis.
- 8. Stabilize the cassette tape with a weight (500g) to prevent floating.
- 9. Turn on the power switch.
- 10. Perform running test.

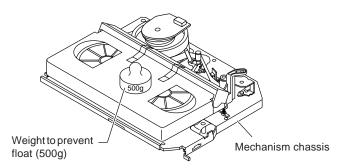


Figure 4-3.

#### Note:

The weight should not be more than 500g.

To take out the cassette tape.

- 1. Turn off the power switch.
- 2. Take out the cassette tape.

# REEL DISK REPLACEMENT AND HEIGHT CHECK

#### Removal

- 1. Remove the cassette housing control assembly.
- 2. Pull the tension band out of the tension arm ass'y.
- 3. Remove the Supply/Take-up main brake ass'y.
- Open the hook at the top of the reel disk, and remove the reel disk.

#### Note:

Take care so that the tension band ass'y and main brake ass'y (especially soft brake) are not deformed.

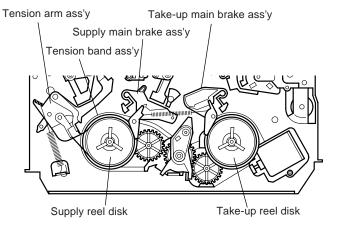




Figure 4-4.

#### Note:

When the tension band ass'y is pressed in the direction of the arrow for removal, the catch is hard to be deformed.



Figure 4-5.

### Reassembly (Supply reel disk)

- Clean the reel disk shaft and apply grease (SC-141) to it
- Match the phases of reel disk and reel relay gear, and set the new reel disk.
- After checking the reel disk height, wind the tension band ass'y around the reel disk, and insert into the hole of tension arm ass'y.

4. Assemble the Supply main brake ass'y.

#### Notes:

- 1. When installing the reel disk, take due care so that the tension band ass'y is not deformed and grease does no adhere.
- 2. Do not damage the Supply main brake ass'y. Be careful so that grease does not adhere to the brake surface.

#### Reassembly (Take-up reel disk)

- Clean the reel disk shaft and apply grease (SC-141) to it.
- 2. Align the phase of the reel disk to that of the reel relay gear and to install a new take-up reel disk onto the shaft.
- 3. Check the reel disk height and reassemble the take-up main brake ass'y.

#### Note:

- 1. Take care so that the Take-up main brake ass'y is not damaged. Take care so that grease does not adhere the brake surface.
- 2. After reassembly, check the video search rewind back tension (see page 15), and check the brake torque (see page 17).

#### Height checking and adjustment Note:

- Set the master plane with due care so that it does not contact the drum.
- 2. When putting the master plane, shift the reverse guide a little in the loading direction. Care must be taken since excessive shift results in damage.

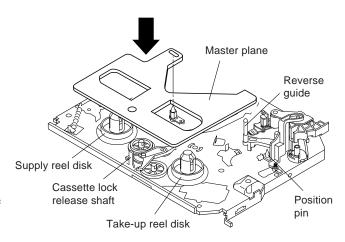


Figure 4-6.

#### Note:

 Check that the reel disk is lower than part A but higher than part B. If the height is not correct, readjust the reel disk height by changing the poly-slider washer under the reel disk.

#### Note:

Whenever replacing the reel disk, perform the height checking and adjustment.

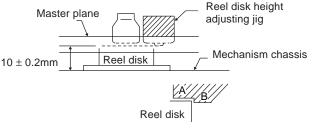


Figure 4-7.

# CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN FAST FORWARD MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Setting

- 1. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.
- 2. Press the FF button.
- To calculate the remaining capacity of the play back mode, slowly rotate the supply reel disk, and then shift it into the forward mode.

### Checking

- 1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CW direction.
- 2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

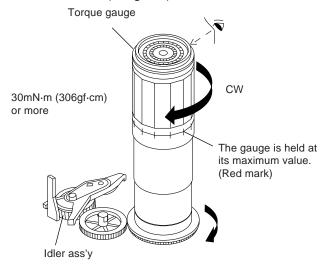


Figure 4-8.

### Adjustment

- 1. If the FF winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, reel belt, and limiter pulley with cleaning liquid, and check again.
- 2. If the torque is less than the set value, replace the reel belt.

#### Notes:

- 1. Hold the torque gauge by hand so that it is not moved.
- 2. Do not keep the reel disk in lock state. Do not allow long-time measurement.

# CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN REWIND MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Setting

- 1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
- 2. Press the rewind button.
- 3. To calculate the remaining capacity, slowly rotate the take-up reel disk, and then shift it into the rewind mode.

## Checking

- 1. Turn the torque gauge slowly (one rotation every 2 to 3 seconds) by hand in the CCW direction.
- 2. Make sure that the indication of torque gauge is not less than 30mN·m (306gf·cm).

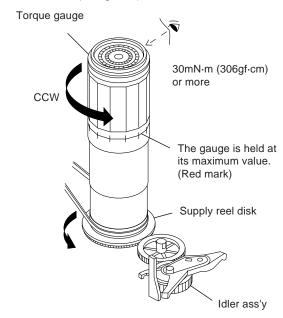


Figure 4-9.

#### Adjustment

- If the rewind winding-up torque is less than the specified value, clean the capstan D.D. motor pulley, drive belt, and limiter pulley with cleaning liquid, rewind again, and check the winding-up torque.
- 2. If the winding-up torque is still out of range, replace the drive belt.

#### Notes:

- 1. Hold the torque gauge by hand so that it is not moved.
- Do not keep the reel disk in lock state. Do not allow longtime measurement.

# CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN RECORD/PLAYBACK MODE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- Turn off the power switch.
- Open the cassette torque meter lid, and fix it with tape.
- Load the cassette torque meter into the unit.
- Put the weight (500g) on the cassette torque meter.
- Turn on the power switch.
- Press the REC button, and set LP picture record mode.

Set value LP6.9 ± 2.5mN·m (70 ± 25gf·cm)

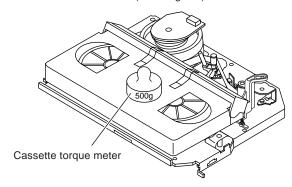


Figure 4-10.

#### Checking

- 1. Make sure that value is within the setting 6.9±2.5mN⋅m (70±25gf⋅cm).
- 2. The winding-up torque fluctuates due to variation of rotation torque of limiter pulley ass'y. Read the center value of fluctuation as setting.
- 3. Set the LP record mode and make sure that the windingup torque is within setting.

#### Adjustment

If the playback winding-up torque is not within the setting, replace the limiter pulley assembly.

#### Note:

When the torque cassette is set, put a weight (500g) to prevent rise.

When the cassette torque meter is taken out.

Turn off the power switch.

# CHECKING AND ADJUSTMENT OF TAKE-UP TORQUE IN VIDEO SEARCH REWIND MODE

- · Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Setting

Press the playback button and rewind button to set the video search rewinding mode.

#### Checking

Place the torque gauge on the supply reel disk, and turn it counterclockwise very slowly (one rotation every 1 to 2 seconds) and check that the torque is within the set value  $14.0 \pm 3.9 \text{mN} \cdot \text{m}$ . ( $144 \pm 40 \text{gf} \cdot \text{cm}$ )

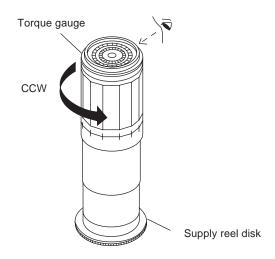


Figure 4-11.

### Note:

Surely put the torque gauge on the reel disk to measure. If the torque gauge is raised, accurate measurement is impossible.

#### Adjustment

If the rewinding playback winding-up torque is not within the setting, replace the limiter pulley assembly.

#### Note:

The winding-up torque fluctuates due to variation of rotation torque of supply reel disk. Read the center value of fluctuation as setting.

# CHECKING THE VIDEO SEARCH REWIND BACK TENSION

- · Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Checking

- After pressing the play button, press the rewind button, and set the video search rewind mode.
- 2. Place the torque gauge on the take-up reel disk, and turn it counterclockwise very slowly (one rotation every 2 to 3 seconds) and check that the torque is within the set value 3.4±1.5mN·m (35±15gf·cm).

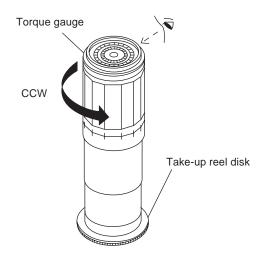


Figure 4-12.

#### Notes:

Set the torque gauge securely on the take-up reel disk. If it is not secure, the measurement will be incorrect.

#### CHECKING THE PINCH ROLLER PRESSURE

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Checking

Press the play button to set the playback mode.

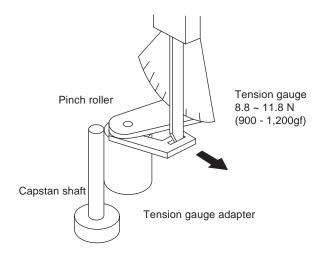


Figure 4-13.

- Detach the pinch roller from the capstan shaft.
   Do not separate excessively. Or the pinch lever and pinch double action lever may disengage.
- 2. Engage the tension gauge adapter with the pinch roller shaft, and pull in the arrow direction.
- Gradually return the pinch roller, and measure the pulling force when the pinch roller contacts the capstan shaft.
- 4. Make sure that the measured value is within setting 8.8 to 11.8 N (900 to 1,200gf).

# CHECKING AND ADJUSTMENT OF TENSION POLE POSITION

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Setting

- 1. Turn off the power switch.
- 2. Open the cassette tape (E-180), and fix with tape.
- 3. Set the cassette tape in loading state.
- 4. Put the weight (500g) on the cassette tape.
- 5. Turn on the power switch.
- 6. Make the adjustment with the beginning of a E-180 tape.

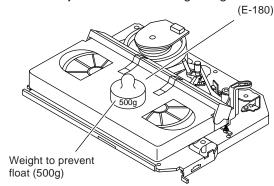
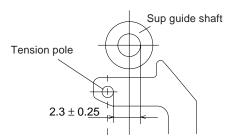


Figure 4-14.

#### Checking

 Set a cassette tape, push the REC button to place the unit in the SP record mode. Now check the tension pole position. 2. Visually check to see if the right edge of the tension pole is within the 2.3  $\pm$  0.25 from the right edge of the Sup guide shaft.



Make the adjustment with the beginning of a E-180 tape.

Figure 4-15.

#### At left side from the center line

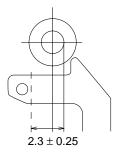


Figure 4-16.

Insert the slotted screwdriver in the tension pole adjuster, and rotate counterclockwise.

#### At right side from the center line

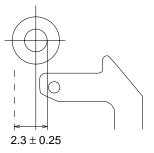


Figure 4-17.

Insert the slotted screwdriver in the tension pole adjuster, and rotate clockwise.

Tension pole adjuster adjusting range

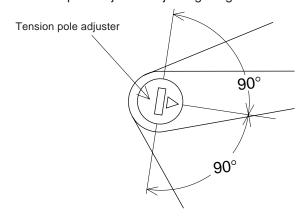


Figure 4-18.

Adjust so that the delta mark of tension pole adjuster is within 90° range (left, right).

# CHECKING AND ADJUSTMENT OF RECORD/ PLAYBACK BACK TENSION

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
- Setting
- 1. Turn off the power switch.
- 2. Open the torque cassette meter and fix with tape.
- 3. Set the cassette tape in loading state.
- 4. Put the weight (500g) on the cassette torque meter.
- 5. Turn on the power switch.

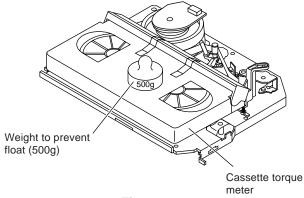


Figure 4-19.

#### Checking

- Push the REC button to place the unit in the SP record mode.
- 2. At this time ascertain that the back tension is within the setting (36.5 to 52g·cm) by seeing the indication of torque cassette meter.

#### Adjustment

- 1. If the indication of torque cassette meter is lower than the setting, shift the tension spring engagement to the part A.
- 2. If the indication of torque cassette meter is higher than the setting, shift the tension spring engagement to the part B

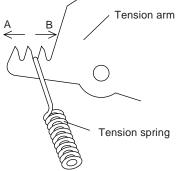


Figure 4-20.

#### CHECKING THE BRAKE TORQUE

· Checking the brake torque at the supply side

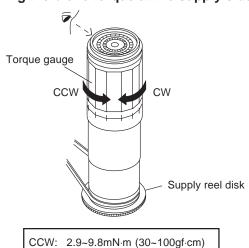


Figure 4-21.

4.9~13.7mN·m (50~140gf·cm)

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

## Setting

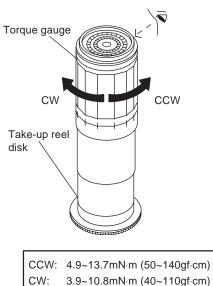
- 1. Set a torque gauge to zero on the scale. Place it on the supply reel disk.
- 2. Switch from the FF mode to the STOP mode.
- 3. Disconnect the power cord.

CW:

#### Checking

Turn the torque gauge at a rate of about one turn/2 sec in the CW direction/CCW direction with respect to the supply reel disk so that the reel disk and torque gauge pointer rotate at equal speed, and make sure that the value is within the setting (CW direction: 4.9 to 13.7mN·m (50 to 140gf·cm); CCW direction: 2.9 to 9.8mN·m (30 to 100gf·cm).

#### · Checking the brake torque at the take-up side



3.9~10.0mm\m (40~110girci

Figure 4-22.

- Remove the cassette housing control assembly.
- After short-circuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.

#### Setting

- 1. Switch from the FF mode to the STOP mode.
- 2. Disconnect the power cord.
- 3. Set a torque gauge to zero on the scale. Place it on the take-up reel disk.

### Checking

- 1. Turn the torque gauge at a rate of about one turn/2 sec in the CCW direction/CW direction so that the reel disk and torque gauge pointer rotates at equal speed and make sure that the value is within the setting (CCW direction: 4.9 to 13.7mN·m (50 to 140gf·cm), CW direction: 3.9 to 10.8 mN·m (40 to 110gf·cm).
- 2. Adjustment of the brake torque at the supply side and the take-up side
- Unless the supply side brake torque or take-up side brake torque is within the setting, clean the felt surface of reel disk (supply, take-up) brake lever, check again the brake torque.
- If value cannot be set within the setting yet, replace the main brake ass'y or main brake spring.

# REPLACEMENT OF A/C (Audio/Control) HEAD

- 1. Remove the cassette housing control assembly.
- 2. In unloading state unplug the power cord.

#### Removal

- 1. Remove the screws ①②③, Azimuth screw, Tilt screw.
- 2. Unsolder the PWB fitted to the A/C head.

#### Notes:

- 1. When replacing, never touch the head. If you touched, clean with the cleaning liquid.
- 2. When removing the screw ③, take care so that the spring may out.

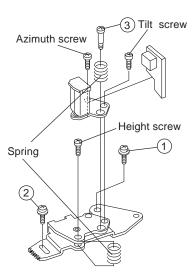
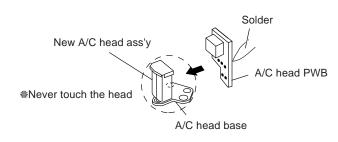


Figure 4-23.

#### Replacement

- 1. Solder the removed PWB to the new head assembly.
- 2. Adjust the height from the A/C head plate (lower surface) to the A/C head base to 10.8mm with slide calipers. (3 places of azimuth screw section, tilt screw section and hight screw section) (See the figure below.)



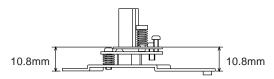


Figure 4-24.

3. Align the left end of gear of A/C head plate with the punched mark of chassis, tentatively tighten the screws ① and ② so as to ensure smooth motion of A/C head plate. Tentative tightening torque must be 0.15 to 0.20 N·m (1.5 to 2.0kgf·cm).

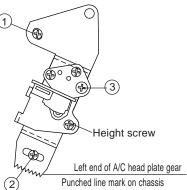
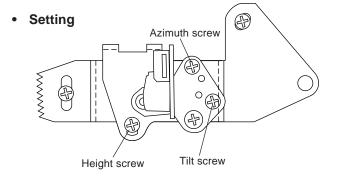


Figure 4-25.

#### Note:

- 1. If the screws ① and ② are tighten tentatively too loose, the azimuth and height of A/C head may change when they are finally tightened. Therefore care must be taken.
- 2. After completion of A/C head be sure to adjust tape running. (Execute the running adjustment by the method described in Page 20, 21.)

#### A/C HEAD HEIGHT ROUGH ADJUSTMENT



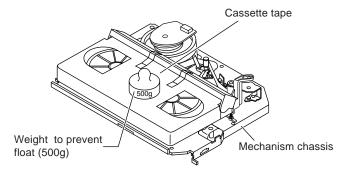


Figure 4-26.

- 1. Set the cassette tape in the unit.
- Press the PLAY button to put the unit in the playback mode.
- Roughly adjust the height of the A/C head by turning the height screw until the tape is in the position shown below.

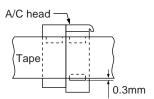


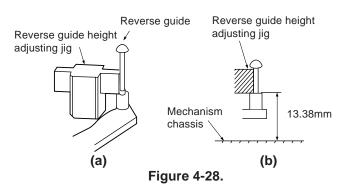
Figure 4-27.

#### Adjustment

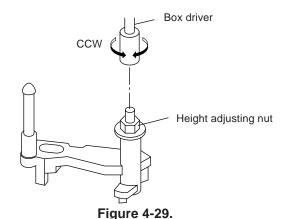
Adjust the height screw visually so that the control head is visible 0.3mm below the bottom of the tape.

#### HEIGHT ADJUSTMENT OF REVERSE GUIDE

1. Adjust the height from the mechanism chassis to the reverse guide lower flange to 13.38 mm, using the reverse guide height adjustment jig, in tape loading state. (Refer to Figure 4-28 (a) (b).)

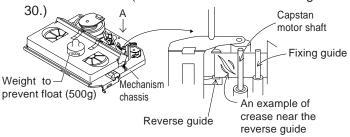


Rotate counterclockwise the reverse guide height adjustment nut 1/10 turn. (For height adjustment use the reverse guide height adjustment box driver (JiGDRiVER 11055)).



3. Set the tape, and check for tape crease near the reverse guide in the playback mode.

If crease is found, turn the reverse guide adjustment nut to remove crease. (As for crease check refer to Figure 4-



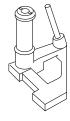
\* Check for crease from the A direction.

Figure 4-30.

#### ADJUSTMENT OF TAPE DRIVE TRAIN

- 1. Tape run rough adjustment
  - (1) Remove the cassette housing control assembly.
  - ② After shortcircuiting TP801 provided at the center (facing to the main PWB), plug in the power cord.
  - ③ Check and adjust the position of the tension pole. (See page 15.)
  - 4 Check and adjust the video search rewind back tension. (See page 15.)
  - (5) Connect the oscilloscope to the test point for PB CHROMA envelope output (TP201). Set the synchronism of the oscilloscope to EXT. The PB CHROMA signal is to be triggered by the head switching pulse (TP202).
  - 6 Set the alignment tape (VROCPSV) to play. (Put a 500g weight on the cassette tape to prevent lift of cassette tape.)





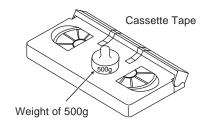


Figure 4-31.

- Press the tracking button (+), (-) and change the envelope waveform from max to min and from min to max. At this time make sure that the envelope waveform changes nearly parallel.
- (8) Unless the envelope waveform changes nearly parallel, adjust the height of supply side and take-up side guide roller so that the envelope waveform changes nearly parallel. (For envelop adjustment procedure refer to Figure 4-35.)
- (9) Turn the tilt screw to remove the tape crease at the fixing guide flange.
  - Playback the tape and check for tape crease at the fixing guide flange.
  - (1) If there is no tape crease

    Turn the tilt screw clockwise so that tape crease appears once at the flange, and then return the tilt screw so that the crease disappears.
  - (2) If there is tape crease

    Turn counterclockwise the tilt screw so that the tape crease disappears.

(Reference) If the tilt screw is turned clockwise crease appears at the lower flange.

#### Notes:

- Previously set the tracking control in the center position, and adjust the envelop waveform to maximum with X value adjustment nut. Thereby the tape run rough adjustment is facilitated.
- 2. Especially the outlet side envelope waveform must have higher flatness.



Figure 4-32

- 2. Adjustment of A/C head height and azimuth
  - 1 Perform the initial setting of A/C head position by the method stated in "Page 18 Replacement 3".
  - Connect the oscilloscope to the audio output terminal
  - ③ Using the alignment tape in which 1 kHz linear audio signal has been recorded, adjust the height screw so as to get max audio output.
  - 4 Using the alignment tape in which 6 kHz linear audio signal has been recorded, adjust the azimuth screw so as to get max audio output.
  - ⑤ Repeat the above adjustment steps ③ and ④ a couple of times. Finally take the step ④ again.

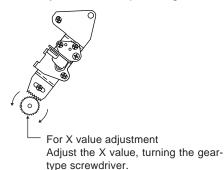


Figure 4-33.

- 3. Tape run adjustment
  - ① Connect the oscilloscope to PB CHROMA envelope output test point, set oscilloscope sync to EXT, trigger-input the PB CHROMA signal (head switching pulse).
  - ② Rough adjustment of X value
    Tentatively fix A/C head arm screws ① and ② by the
    method described in Page 18 "Replacement 3".
    Playback the alignment tape (VROCPSV) and
    shortcircuit TP802. As a result the auto-tracking is
    automatically cancelled, so that the X value adjustment mode is set.

Move the A/C head with the X value adjustment gear driver (JiGDRiVER-6) by the method shown in Figure 4-33, and adjust the A/C head so as to get the maximum envelope waveform. (Note: When the A/C head is adjusted, adjust so that the maximum envelop waveform is obtained nearest the position of initial setting made in Page 18.)

- ③ Next, press the tracking button (+), (-) and change the envelope waveform from max to min and from min to max. At this time adjust the height of supply and take-up side guide roller with the adjustment driver (JiGDRiVERH-4) so that the envelope waveform changes nearly parallel.
- 4 If the tape is lifted or sunk from the helical lead surface, the PB CHROMA envelope waveform appears as shown in Figure 4-35.
- (5) Press the tracking button (+), (–) and make sure that the envelope waveform changes nearly parallel.
- ⑥ Finally check tape crease near the reverse guide. If tape crease is found, remove it as stated in Page 19 "HEIGHT ADJUSTMENT OF REVERSE GUIDE" item 3.

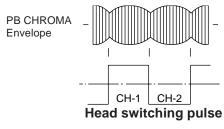


Figure 4-34.

- 4. A/C head X value adjustment
  - ① Tentatively fix A/C head arm screws ① and ② by the method described in Page 18 "Replacement 3".
  - Playback the alignment tape and shortcircuit TP802. As a result the auto-tracking is automatically cancelled, so that the X value adjustment mode is set.
  - 3 Move the A/C head with the X value adjustment gear driver by the method shown in Figure 4-33, and

	When the tape is ab	ove the helical lead.	When the tape is be	low the helical lead.
	Supply side	Take-up side	Supply side	Take-up side
Adjustment	Supply side guide roller rotated in clockwise direction (lowers guide roller) to flatten envelope.	Take-up side guide roller rotated in clockwise direction (lowers guide roller) to flatten envelope.	Supply side guide roller rotated in counterclockwise direction (raises guide roller) to make the tape float above the helical lead. The supply side guide roller is then rotated in the clockwise direction to flatten the envelope.	Take-up side guide roller rotated in counterclock-wise direction (raises guide roller) to make the tape float above the helical lead. The take-up side guide roller is then rotated in the clockwise direction to flatten the envelope.

Figure 4-35.

adjust the A/C head so as to get the maximum envelope waveform. (Note: At this time adjust so as to get the maximum envelope waveform nearest the A/C head position which has been set in case of X value rough adjustment as stated in Page 20, 3- ②.)

- ④ Tighten finally the screws ① and ②. Be sure to tighten at first the screw ① and then the screw ②. Final tightening torque is 0.6N·m (If the screw ② is tightened first, the X value may deviate.)
- (5) Adjust the playback switching point (Refer to the electric adjustment method.)
- 6 Playback the self-picture-recorded tape, and check the flatness of envelope waveform and sound.

#### Notes:

When the A/C head X value adjustment is performed, be

sure to perform at first X value rough adjustment (refer to Page 20, 3-(2)).

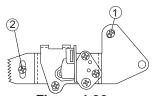
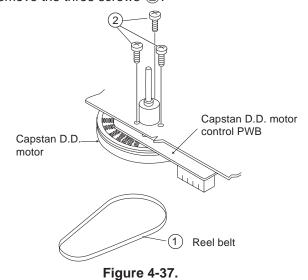


Figure 4-36.

# REPLACEMENT OF THE CAPSTAN D.D. (DIRECT DRIVE) MOTOR

- Remove the mechanism from the main PWB (refer to Page 5 item 1. When removing the mechanism from the main PWB").
- Removal (Follow the order of indicated numbers.)
- 1. Remove the reel belt (1).
- 2. Remove the three screws (2).



#### Reassembly

- 1. Taking care so that the capstan shaft does not contact the mechanism chassis, set its position on the mechanism chassis, and then install with the three screws.
- 2. Install the reel belt.

#### Notes:

- 1. After installing the capstan D.D. motor, be sure to rotate the capstan D.D. motor and check the movement.
- Set the tape, and check for the tape crease near the reverse guide in the playback mode. Adjust the A/C head and azimuth as stated in Page 20 Replacement 2. If crease is found, adjust as stated in Page 19 "HEIGHT ADJUSTMENT OF REVERSE GUIDE".

#### REPLACEMENT OF DRUM D.D. MOTOR

- 1. Set the ejection mode.
- 2. Withdraw the main power plug from the socket.

#### Removal (Perform in numerical order.)

- 1. Disconnect the FFC cable (1).
- 2. Unscrew the D.D. stator assembly fixing screws ②.
- 3. Take out the D.D. stator assembly (3).
- 4. Unscrew the D.D. rotor assembly fixing screws (4).
- 5. Take out the D.D. rotor assembly (5).

#### Notes:

- In removing the D.D. stator assembly, part of the drum earth spring pops out of the pre-load collar. Be careful not to lose it.
- Install, so that the D.D. rotor ass'y and upper drum ass'y mounting direction check holes align. (Align the upper drum dent with the rotor hole.)
- 3. Be careful not to damage the upper drum or the video head.
- 4. Protect the hole elements from shock due to contact with D.D. stator or D.D. rotor ass'y.
- 5. After installation adjust the playback switching point for adjustment of servo circuit.

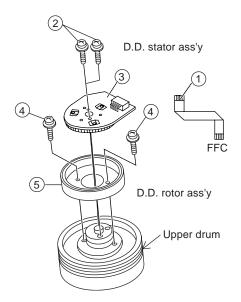


Figure 4-38.

# REPLACING THE UPPER AND LOWER DRUM ASSEMBLY

- Replacement (Perform in the numerical order)
- 1 Remove the motor as stated in Page 22 D.D. motor replacement.
- ② Remove the drum earth brush ass'y ②.
- ③ Remove the drum base ③ from the upper and lower drum assembly ①.

## [Cares when replacing the drum]

- 1. Be careful so that the drum earth brush is not lost.
- 2. Do not touch directly the drum surface.
- 3. Fit gently the screwdriver to the screws.
- 4. Since the drum assembly is an extremely precise assembly, it must be handled with utmost care.
- 5. Make sure that the drum surface is free from dust, dirt and foreign substances.
- 6. After replacing the drum be sure to perform the tape running adjustment.

After that, perform also the electrical adjustment.

- Playback switching point adjustment
- · X-position adjustment and check
- Standard and x-3 slow tracking adjustment
- 7. After replacing the drum clean the drum.

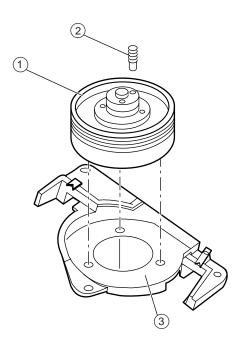


Figure 4-39.

# ASSEMBLING OF PHASE MATCHING MECHANISM COMPONENTS

- Assemble the phase matching mechanism components in the following order.
- 1. Assemble the pinch roller assembly and pinch drive cam.
- 2. Mounting the shifter (on the back of the mechanism chassis).
- Mounting the master cam (on the back of the mechanism chassis).
- Assemble the connection gear, slow brake and loading motor parts.

# Pinch drive cam and pinch roller assembling method.

### (Place the following parts in position in numerical order.)

- (1) Reverse drive lever 1
- (2) Reverse guide spring (2)
- (3) Reverse guide lever ass'y ③
- (4) Reverse guide height adjusting nut 4
- (5) Pinch drive cam (5)
- (6) Pinch roller ass'y (6)
- (7) Open lever (7)

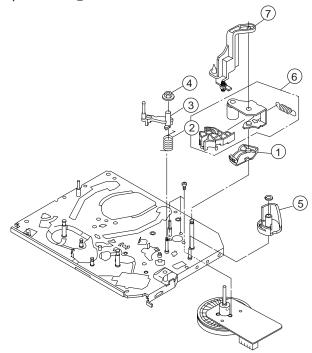
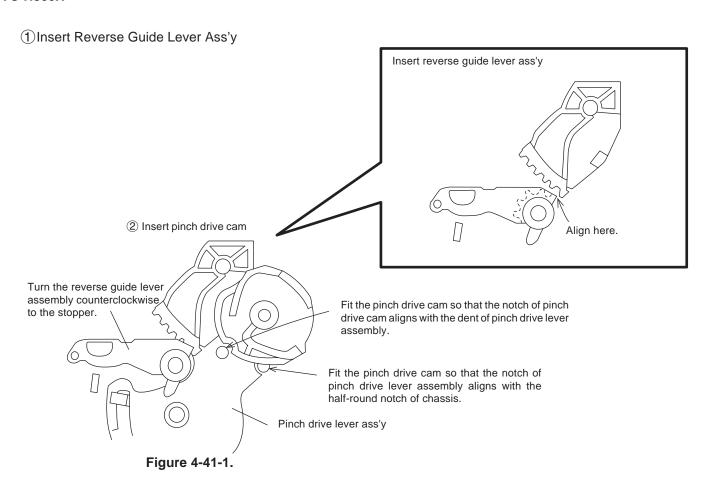


Figure 4-40.



2 Insert Pinch Roller/Pinch Double Action Lever Ass'y.



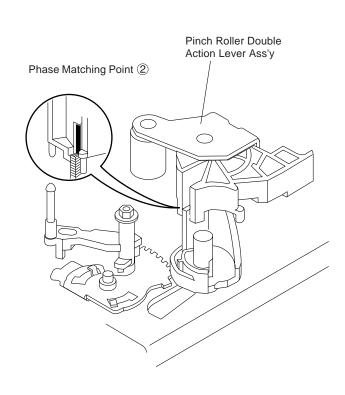


Figure 4-41-2.

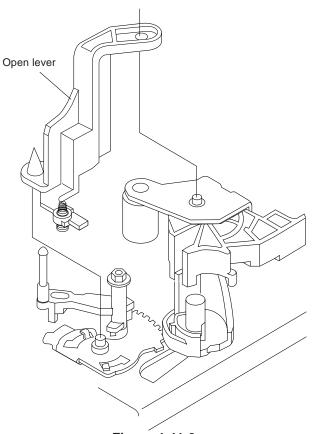
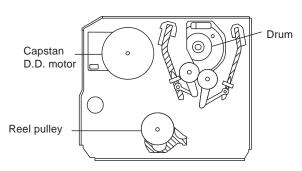


Figure 4-41-3.

### **INSTALLING THE SHIFTER**



- 1. Make sure that the loading gear is at the PHASE-MATCHING point 1 as shown below.
- 2. Install, paying attention to insert point ⑤ and release point ③.
- 3. For the phase matching at the insert point ①, see the PHASE-MATCHING point ② as shown below.
- 4. Finally fix the inserts (1) and (4).

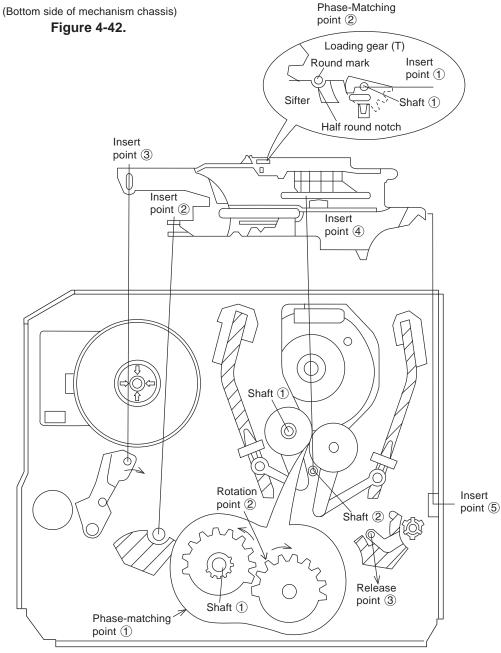


Figure 4-43.

# INSTALLING THE MASTER CAM (AT REAR SIDE OF MECHANISM CHASSIS)

- 1. Make sure beforehand that the shifter is at the point as shown below.
- 2. Place the master cam in the position as shown below.

# REPLACEMENT OF LOADING MOTOR



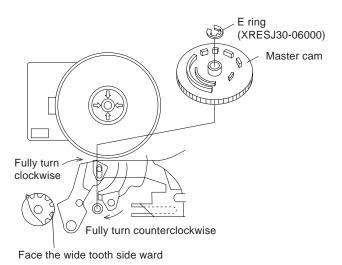


Figure 4-44-1.

#### Note:

See the figure below for the phase matching between the master cam and the casecon drive gear.

3. Finally fix with the E ring.

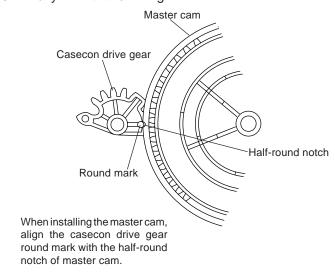


Figure 4-44-2.

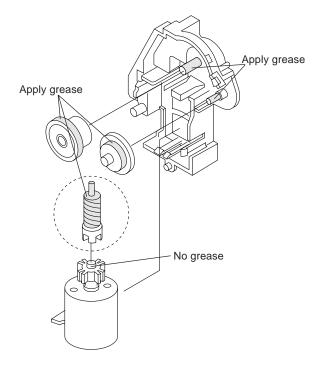


Figure 4-45.

### Replacement

Remove the loading motor, and install the replacement loading motor as shown below.

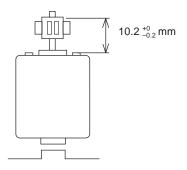
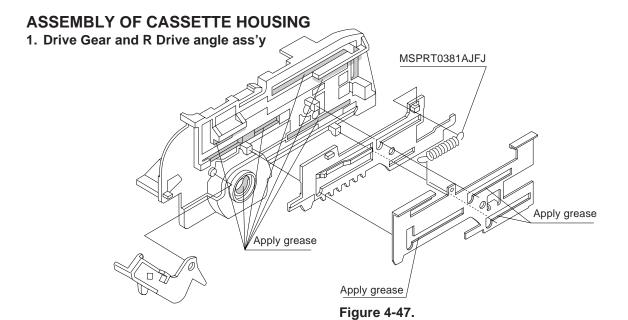


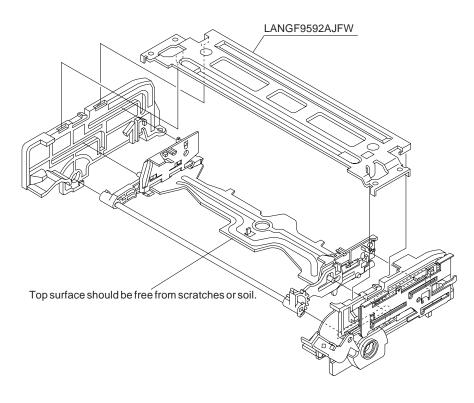
Figure 4-46.

The loading motor pressing-in must be less than 147 N (15

Adjust the distance between motor and pulley to 10.2  $^{+0}_{-0.2}$  mm).



# 2. Synchro Gear, Drive Gear L and Drive Gear R



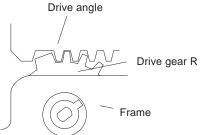


Figure 4-48.

# **ADJUSTMENT OF VCO CIRCUIT**

Measuring instrument	Colour TV monitor DC voltmeter
Mode	RF signal at E12-CH (by VHF signal generator)
Test point	Pin(1)(AF1) of TP101. Pin(4)(GND.) of TP101.
Control	T1601 VCO control
Specification	2.5±0.5V

- 1. Set VCR to Power On mode.
- 2. Press "Test key" mode.
- 3. Press channel E12 of R/C at 87.5% mod. and  $70dB\mu$  of antenna terminal (Caution: Do not press SW button on set. Use R/C.)
- 4. Connect a DC voltmeter to test point shown in table.
- 5. Look at the voltmeter and adjust T1601 at voltage specified.

### ADJUSTMENT OF RF AGC

Measuring instrument	Colour TV monitor Oscilloscope
Mode	RF signal at E12-CH (by VHF signal generator)
Test point	Pin(3) Signal of TP101. Pin(4) GND of TP101.
Control	R1626 RF AGC control
Specification	

- 1.Receive E12 channel signal at 87.5% mod. and  $70\text{dB}\mu$  of antenna signal.
- 2. Connect an oscilloscope to test point shown in table.
- 3.Look at the oscilloscope and adjust R1626 counterclockwise until sync-tip becomes from noisy to clear just before shrink position.
- 4. Press "Test key " mode and auto tune to receive signal.

# ADJUSTMENT OF PAL SYSTEM FV (False Vertical Sync) OF STILL PICTURE

Measuring instrument	Colour TV monitor
Mode	Playback still
Cassette	Self-recorded tape (SP mode) (See Note below 1)
Control	Tracking control buttons (▲) or (▼)
Specification	No vertical jitter of picture

- Play a cassette which was recorded by the unit in SP mode.
- 2. Press the PAUSE/STILL button to freeze the picture.
- Look at the monitor screen and adjust (▲) or (▼)
   TRACKING buttons so that the vertical jitter of the
   picture to be minimized.
- 4. Play and freeze the self-recorded tape in SP mode and make sure vertical jitter of the picture is not noticeable. (For the LP mode put adjustment at the same adjustment way as SP mode.)

#### Note:

- ① Self-recorded tape is a cassette whose program was recorded by the unit being adjusted.
- ② The tracking control is enabled with the  $(\triangle)/(\nabla)$  button.

# ADJUSTMENT OF NTSC SYSTEM SP/EP SLOW TRACKING PRESET

Measuring instrument	Colour TV monitor
Mode	Playback
Cassette	Self-recorded tape (SP/EP mode)(See Note below)
Control	Tracking control buttons (▲) or (▼)
Specification	Minimized noise on monitor screen

- 1. Have the unit to receive a good TV broadcast or feed a video signal to the VIDEO IN jack. (See note ② below)
- 2. Set the tape speed in SP mode by using the remote control and record the signal on tape.
- 3. Rewind and play the tape where signal was recorded in above step.
- 4. Press the SLOW button on the remote control, and playback the recorded portion in the slow mode.
- 5. Make for a moment short-ciucuit P802, located at the front side on the main PWB.
  - Be sure that all the fluorescent display tubes light up into the TEST mode.

- 6. Look at the monitor screen and adjust the (▲) or (▼) TRACKING buttons so that the there is noise disappears from the screen.
- 7. Press the STOP button to return to normal mode.
- Play the tape a few seconds then press the SLOW button again and make sure there is on noise in the screen.(For the E P mode put adjustment at the same adjustmet way as SP mode.)

#### Notes:

- (1) Self-recorded tape means a cassette whose program was recorded by the unit being adjusted.
- ② The TV program will not be recoded if RCA or 21pin plugs are pluged in the AUDIO/VIDEO input terminals.
- ③ The tracking control is enabled with the (▲)/(▼) button.

# ADJUSTMENT OF NTSC SYSTEM FV (False Vertical Sync) OF STILL PICTURE

Measuring instrument	Colour TV monitor
Mode	Playback still
Cassette	Self-recorded tape (SP mode) (See Note below 1)
Control	Tracking control buttons (▲) or (▼)
Specification	No vertical jitter of picture

- Play a cassette which was recorded by the unit in SP mode.
- 2. Press the PAUSE/STILL button to freeze the picture.
- 3. Look at the monitor screen and adjust (▲) or (▼) TRACKING buttons so that the vertical jitter of the picture to be minimized.
- 4. Play and freeze the self-recorded tape in SP mode and make sure vertical jitter of the picture is not noticeable. (For the EP mode put adjustment at the same adjustment way as SP mode.)

#### Note:

- ① Self-recorded tape is a cassette whose program was recorded by the unit being adjusted.
- ② The tracking control is enabled with the  $(\triangle)/(\nabla)$  button.

### SERVO CIRCUIT ADJUSTMENT

### ADJUSTMENT OF HEAD SWITCHING POINT

Measuring instrument	Dual-trace oscilloscope Colour TV monitor
Mode	Playback
Cassette	Alignment tape (VROCPSV)
Test point	Pin(2) of P201 (H.SW.P.) to CH-1, VIDEO OUT jack to CH-2 (CH-1 trigger slope switch at (+), Internal trigger at CH-1 side.)
Specification	6.5 ± 0.5H (lines)

- Remove the front panel and play the alignment tape. (VROCPSV)
  - (Playback picture on the monitor screen.)
- 2. Press the PLAY button.
- 3. Make for a moment short-circuit P802, located at the front side on the main PWB.

Press the PLAY button again.

Be sure that all the fluorescent display tubes light up into the TEST mode.(See Note below)

Be sure the " ▶ " appears in the fluorescent display tubes flashing (about 1Hz) into the auto PG adjustment operating.

#### Note:

When the manual PG adjustment, observe the waveform with an oscilloscope and make adjustment FF or REW button so that the specification.

- 4. Stop the " ▶ " appears in the flashing of fluorescent display tubes at adjusted.
- Make this checking of waveform on the oscilloscope screen be as shown in Figure 5-2. just after the head switching point have been adjusted.
- 6. Press the STOP button in the return to manual mode. **Note:**
- ① Set-up of TEST mode.
  When the adjustment of HEAD SWITCHING POINT,
  - AUTO TRACKING function is invalid.
- When the cassette housing control ass'y is removed, set-up of mechanism operating mode.
- 1) Replug the AC power cord it a few minutes later.
- 2) Make a short-circuit P801 located at the front side on the main PWB, and press both (▼) and (▲) tracking control button at the same time to set the tracking in center.
- 3) AC power cord is plugged in.
- 4) Then set-up of mechanism operating mode is completed, replug the AC power cord a few minutes later.

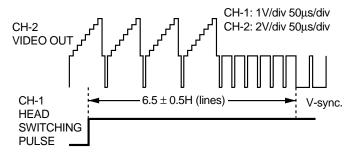


Figure 5-2.

# ADJUSTMENT OF PAL SYSTEM SP/LP SLOW TRACKING PRESET

Measuring instrument	Colour TV monitor
Mode	Playback
Cassette	Self-recorded tape (SP/LP mode)(See Note below)
Control	Tracking control buttons (▲) or (▼)
Specification	Minimized noise on monitor screen

- 1. Have the unit to receive a good TV broadcast or feed a video signal to the VIDEO IN jack. (See note ② below)
- 2. Set the tape speed in SP mode by using the remote control and record the signal on tape.
- 3. Rewind and play the tape where signal was recorded in above step.
- 4. Press the SLOW button on the remote control, and playback the recorded portion in the slow mode.
- 5. Make for a moment short-ciucuit P802, located at the front side on the main PWB.
  - Be sure that all the fluorescent display tubes light up into the TEST mode.
- 6. Look at the monitor screen and adjust the (▲) or (▼) TRACKING buttons so that the there is noise disappears from the screen.
- 7. Press the STOP button to return to normal mode.
- 8. Play the tape a few seconds then press the SLOW button again and make sure there is on noise in the screen.(For the LP mode put adjustment at the same adjustmet way as SP mode.)

#### Notes:

- ① Self-recorded tape means a cassette whose program was recorded by the unit being adjusted.
- ② The TV program will not be recoded if RCA or 21pin plugs are pluged in the AUDIO/VIDEO input terminals.
- ③ The tracking control is enabled with the (▲)/(▼) button.

# 5. ELECTRICAL ADJUSTMENT

#### Notes:

• Before the adjustment:

Electrical adjustments discussed here are often required after replacement of electronic components and mechanical parts such as video heads.

Check that the mechanism and all electric components are in good working condition prior to the adjustments, otherwise adjustments can not be completed.

- Instruments required:
  - OColour TV monitor
  - O Dual-trace oscilloscope

  - OBlank video cassette tape
  - OC voltmeter
  - Screwdriver for adjustment

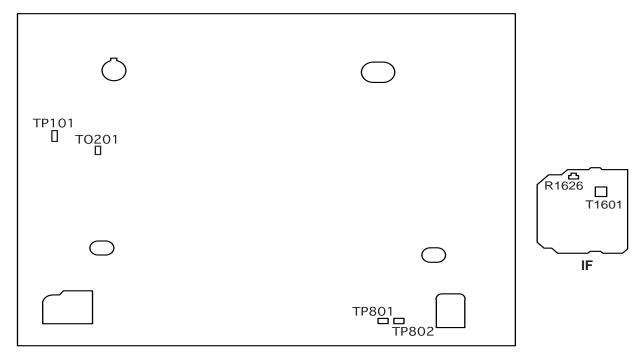
#### Servicing precautions

When the IC710 (E<sup>2</sup>PROM) has been replaced, make the following reprogramming. Depending on models, the IC710 (E<sup>2</sup>PROM) has been factory-adjusted for it's memory function.

It's therefore necessary to reprogram the memory function for the model in question.

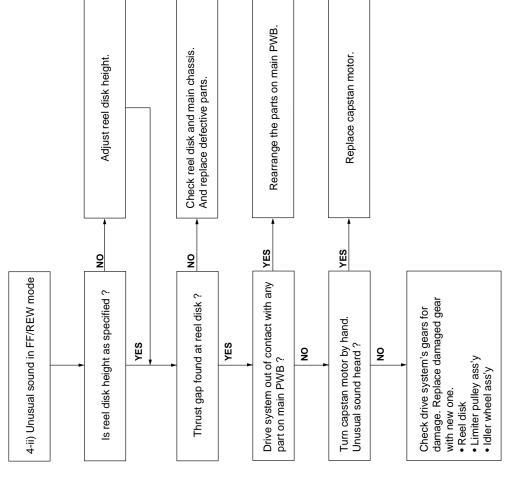
Note that the servo circuit requires readjustments for the head switching point, slow and still modes.

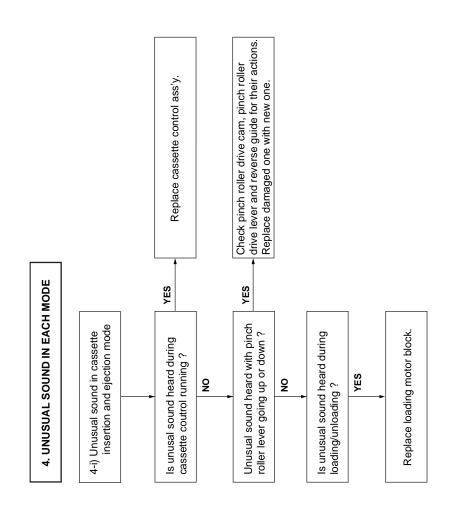
#### · Location of controls and test points

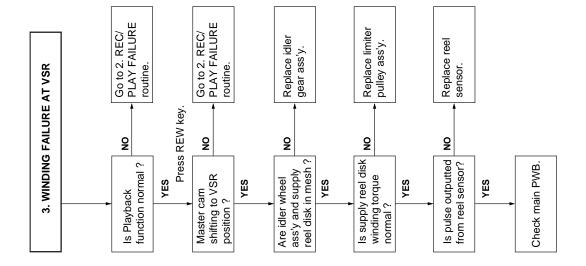


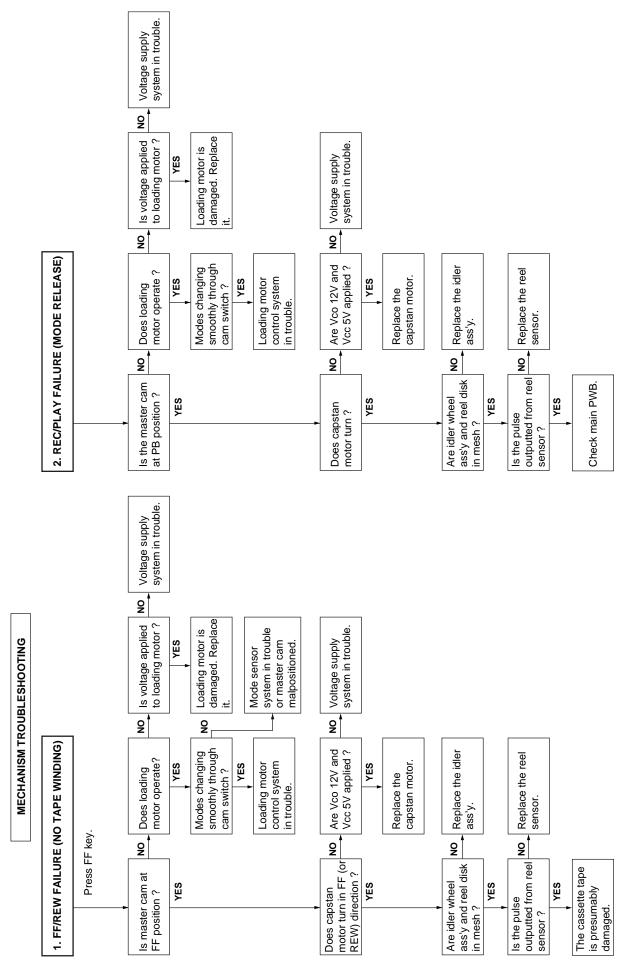
MAIN

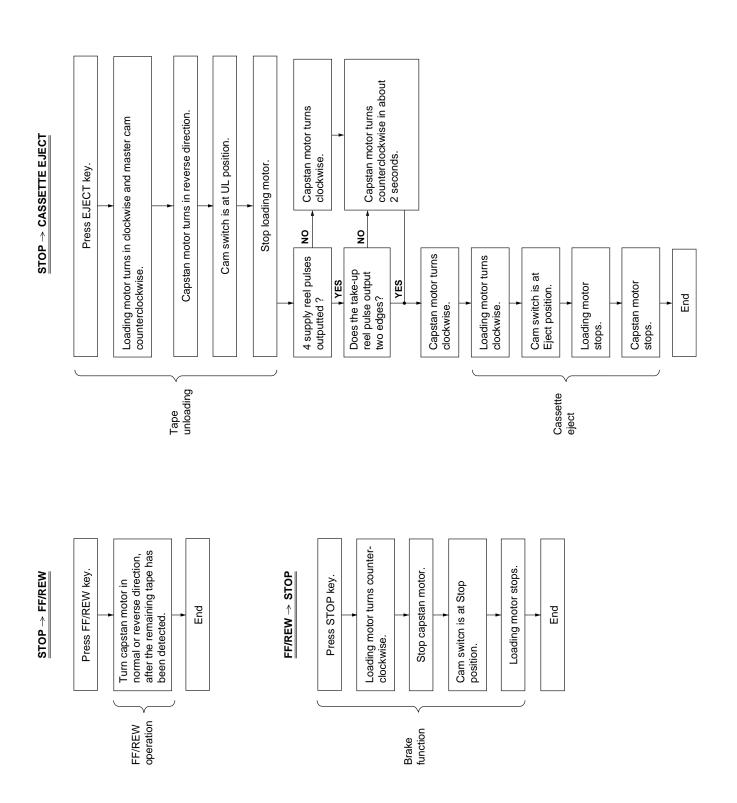
Figure 5-1.

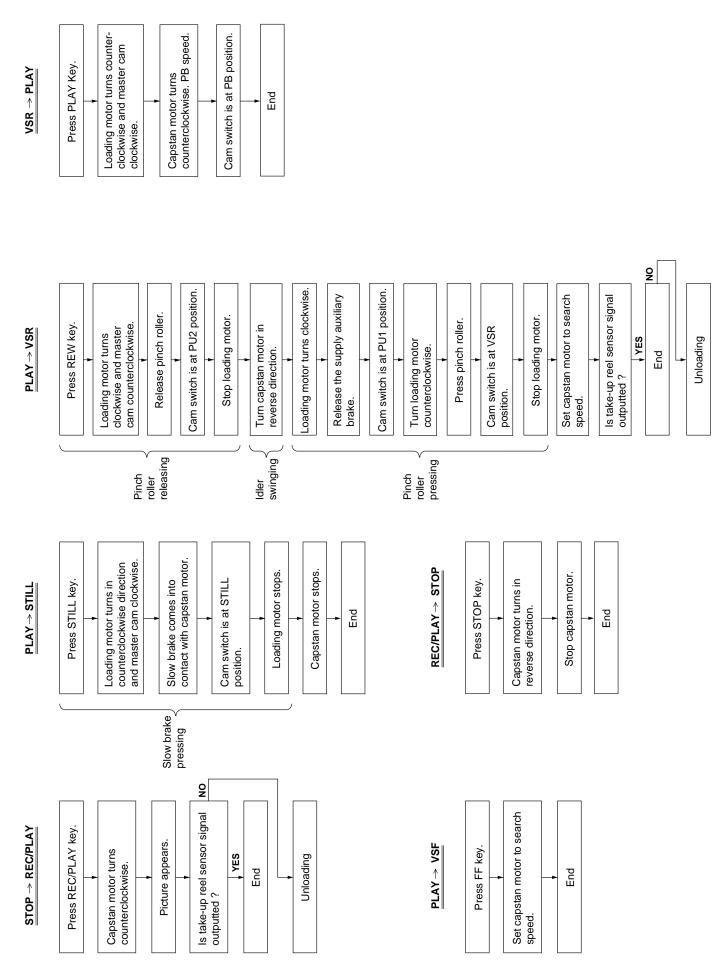






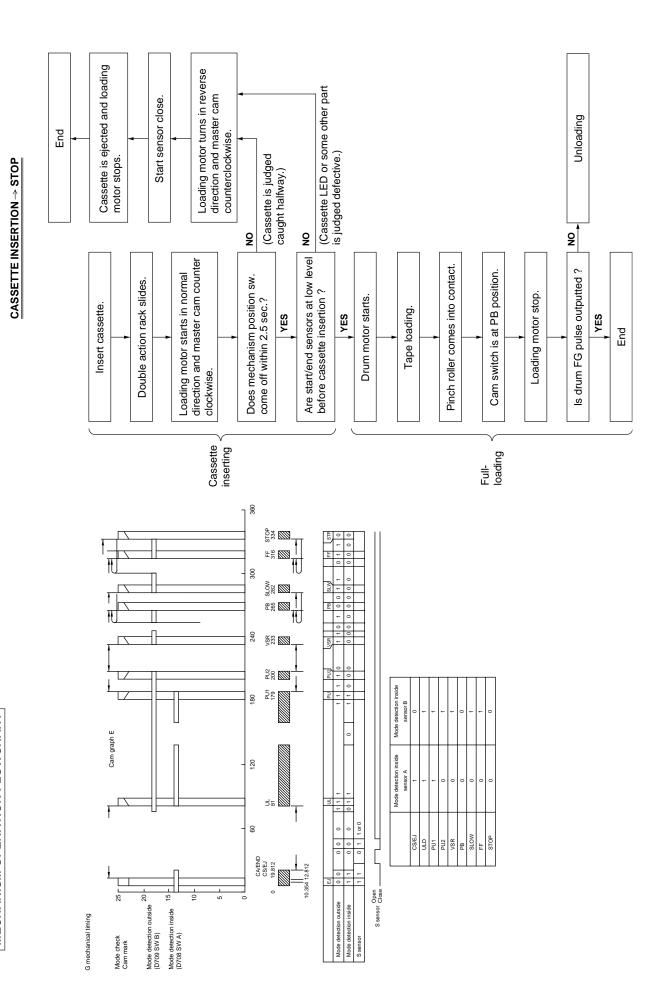






# 6. MECHANISM OPERATION FLOWCHART AND TROUBLESHOOTING GUIDE

**MECHANISM OPERATION FLOWCHART** 



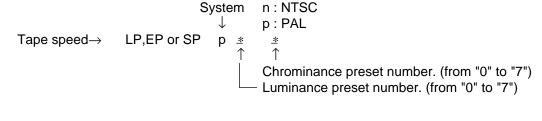
### **ROM MAP**

ROW WAP	MODEL	VC-H800X
EP n <u>*</u> *	NTSC Luminance level	
	NTSC Curilinance level	3
EP n * <u>*</u>		4
SP n <u>*</u> *	NTSC Luminance level	4
SP n * <u>*</u>	NTSC Chrominance level	5
LP p <u>*</u> *	PAL Luminance level	3
LP p * <u>*</u>	PAL Chrominance level	4
SP p <u>*</u> *	PAL Luminance level	4
SP p * <u>*</u>	PAL Chrominance level	4
JP39	A.DUB	_ 1
JP38	NŌT SLOW ATR	0
JP37	ĪNSTĀNT RĒPLĀY	1
JP36	NTPB	1
JP35	NTSC SKEW	0
JP34	HEAD2	1
JP33	HEAD1	1
JP32	HEADO	
JP31	GAMMA	0
JP30		0
JP29	POSI89	0
JP28	R/C CODE 1/2	
JP27	DNR	0
JP26	POST CODE	
JP25	SAT CTL	
JP24	AV LINK	
JP23	Hi-Fi	1
JP22	SORT/AUTO CLOCK	
JP21	DECODER	0
JP20	DOLBY SURROUND	<del>0</del>
JP19	NICAM 1	0
JP18	NICAW 1 NICAM 0	l
JP16 JP17	G-CODE 1	$\begin{bmatrix} - & 0 \\ - & 1 \end{bmatrix}$
JP17 JP16	G-CODE 1 G-CODE 0	l
		0
JP15	OEM	0
JP14		1
JP13	FRONT AV	1 
JP12	DOUBLE SCART	0
JP11	NOT RF OUT	0
JP10	TUNER 2	0
JP 9	TUNER 1	0
JP 8	TUNER 0	1
JP 7	SYSTEM 1	0 0
JP 6	SYSTEM 0	0
JP 5	SAT CH VPS OFF	0
JP 4	LOW POWER	1
JP 3	SPATIALIZER	0
JP 2	VPS/PDC	]0
JP 1	COLOR 1	
JP 0	COLOR 0	1
DIODI AVCINI	JP DISPLAY 1(FF)	O926113
DISPLAY IN	JP DISPLAY 2(STOP)	440b60
HEXADECIMAL NOTATION	Y/C CŪRRĒNT 1(RĒŴ)	344534
INCIATION	Y/C CURRENT 2(PLAY)	<u></u>
	( · · /	

0:LIGHT UP 1:FLASHING

- 2. Memory recording preset level reprogramming.
  - 1. Similarly to the above step 1-1 and 2 the same operate.
  - 2. Using the CHANNEL (+) AND (-) buttons, select the right function numbers continued from recording preset number as has been JP0~J39, which appear in the fluorescent display tube, referring to the E²PROM map.
  - 3. Press the STOP or REW button on the remote control unit.

    By doing, recording level preset number selected by turn from the ten keys on the remote control unit, which appear in the fluorescent display tube referring to the E<sup>2</sup>PROM map.
  - 4. Example:



3. Finally make for a moment short-circuit test point(P802), both located at the front side on the main PWB to clear the TEST mode.

### REPLACEMENT OF IC710(E<sup>2</sup>PROM)

«Servicing precautions»

When the IC710(E<sup>2</sup>PROM) has been replaced, make the following reprogramming.

Depending on models, the IC710(E<sup>2</sup>PROM) has been factory adjusted for it's memory function.

It's therefore necessary to reprogram the memory function for the model in question.

Note that the servo circuit requires readjustments for the slow and still modes.

- 1. Memory function reprogramming.
  - 1. Check the power off. (Power is standby mode)
  - 2. Make for moment short-circuit test point(P802), located at the front side on the main PWB. Be sure that all the fluorescent display tube light up into the TEST mode.
  - 3. Using the CHANNEL(+) AND (–) buttons, select the right function numbers from JP0 to JP39, which appear in the fluorescent display tube, referring to the E<sup>2</sup>PROM map.

Press the DISPLAY button to pickup the functions(ON) and the CLEAR button to discard the functions(OFF). DISPLAY and CLEAR buttons, are located on the remote control unit.

- \* when the DISPLAY button has been pressed (ON), the memory function number starts flashing.
- \* when the CLEAR button has been pressed (OFF), the memory function number lights up.
- 4. Press the FF button on the remote control unit.

By doing, lower 7 of the 10 digits are displayed in hexadecimal notation.

5. Similarly to the above step 4, press the STOP button on the remote control unit.

By doing, upper 3 of the 10 digits are displayed in hexadecimal notation.

6. Example: "ON" and "OFF" are taken as "1" and "0" respectively.

The numbers JP0 to JP39 are divided into four groups and each group's setting is displayed in hexadecimal notation.

① When the press the FF button on the remote control unit.

By doing, lower 7 of the 10 digits are displayed in hexadecimal notation.

JP26 JP25 JP24 JP23 JP22 JP21 JP2(	) JP19 JP18 JP17 JP1	3 JP15 JP14 JP13 JP12 JP11	1 JP10 JP9 JP8	JP7 JP6 JP5 JP4	JP3 JP2 JP1 JP0		
0 0 0 1 0 0 1	0 0 1 0	0 1 1 0 0	0 0 1	0 0 0 1	0 0 1 1		
$\downarrow$ $\downarrow$	↓ ↓	↓ ↓	$\downarrow$	<b>↓</b>	↓		
0 9	2	6	1	1	3		

(2) When the press the STOP button on the remote control unit.

By doing, upper 3 in the 10 digits are displayed in hexadecimal notation from the feature function.

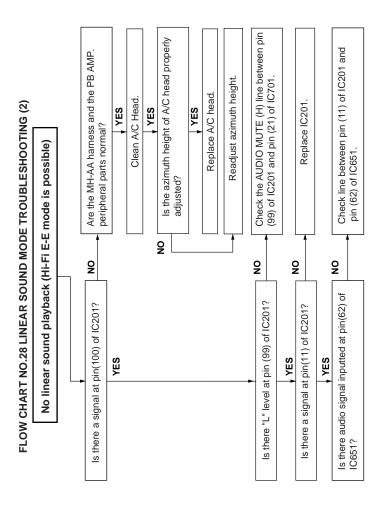
Also recording level preset number selected from the ten keys on the remote control unit which appear in the fluorescent display tube, referring to the E<sup>2</sup>PROM map.

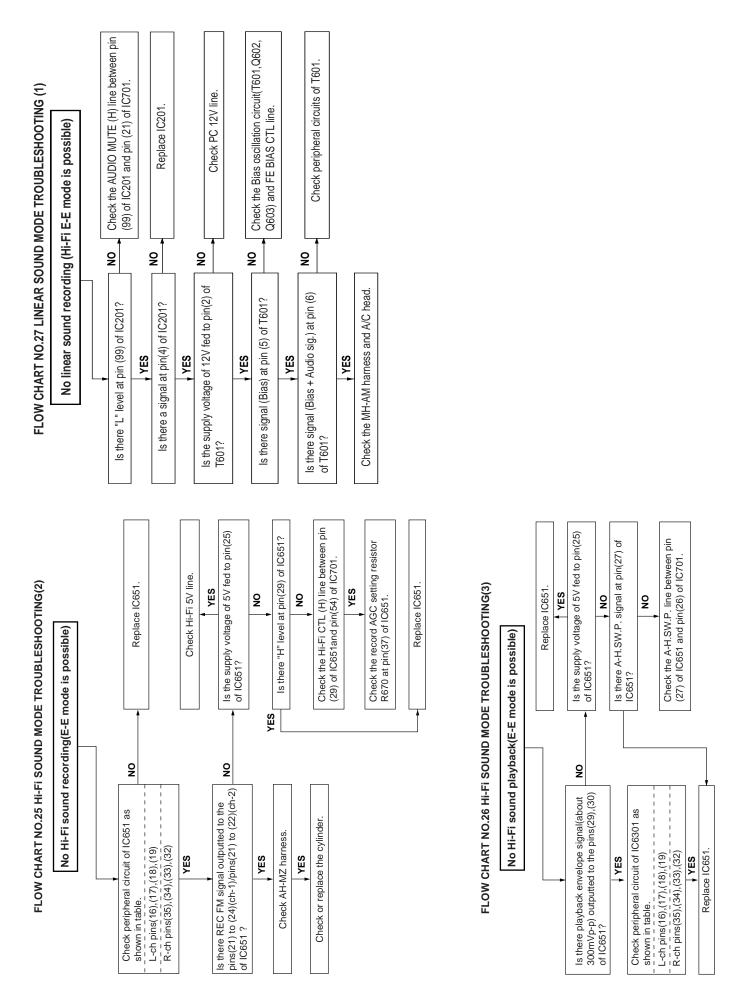


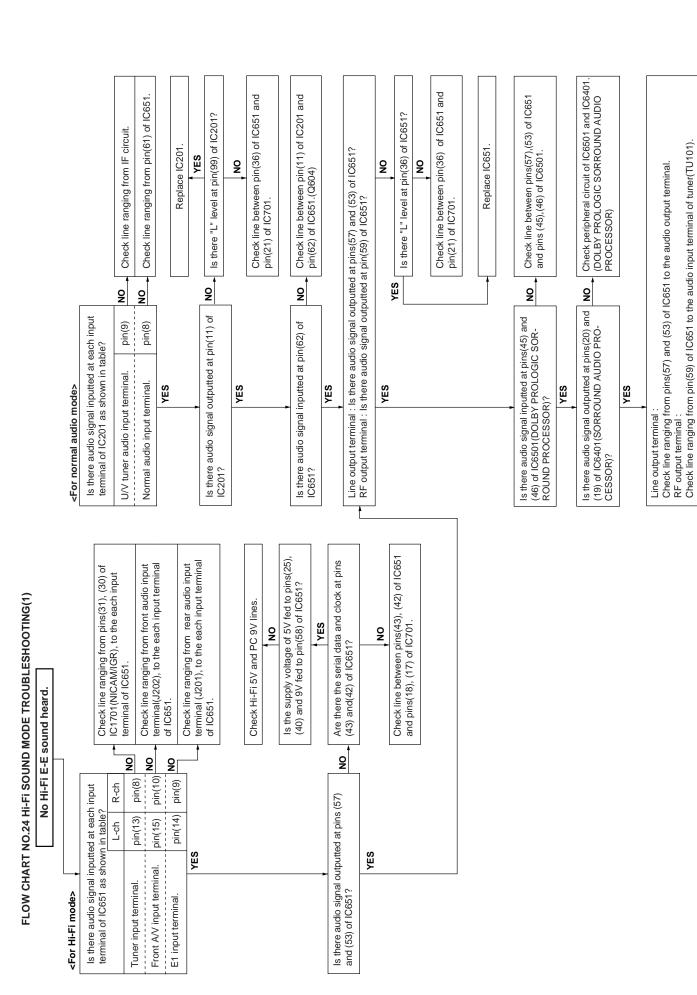
③ When the press the REW button on the remote control unit.

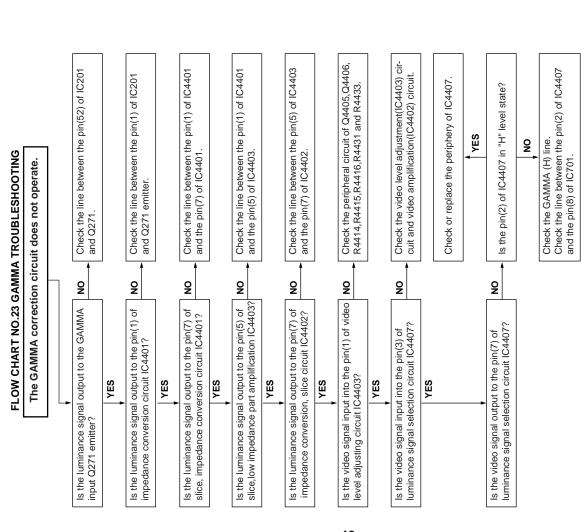
By doing, recording level preset number selected from the ten keys on the remote control unit which appear in the fluorescent display tube, referring to the E<sup>2</sup>PROM map.

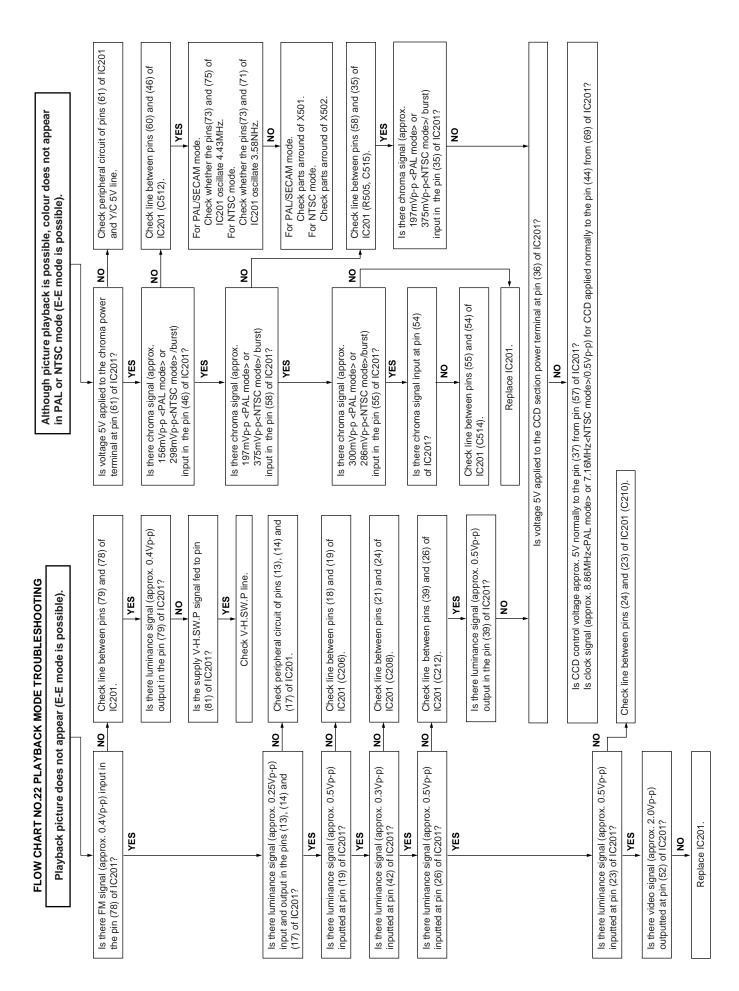
Out lights	EP	n	*	*	EP	n	*	*	SP	n	*	*	SP	n	*	*	LP	р	*	*	LP	р	*	*
			$\uparrow$					1			$\uparrow$					$\uparrow$			$\uparrow$					1
blank	selec	tion 1	from	the	select	ion i	from	the	select	ion f	rom	the	select	ion f	rom	the	select	tion f	from	the	select	ion f	rom	the
	ten ke	eys.			ten ke	ys.			ten ke	ys.			ten ke	ys.			ten ke	eys.			ten ke	ys.		
	(from	"0" t	to "7	")	from (	"0" t	to "7"	)	(from	"O" t	o "7"	)	(from	"0" t	o "7'	')	(from	"0" t	o "7	")	(from	"0" t	o "7'	")

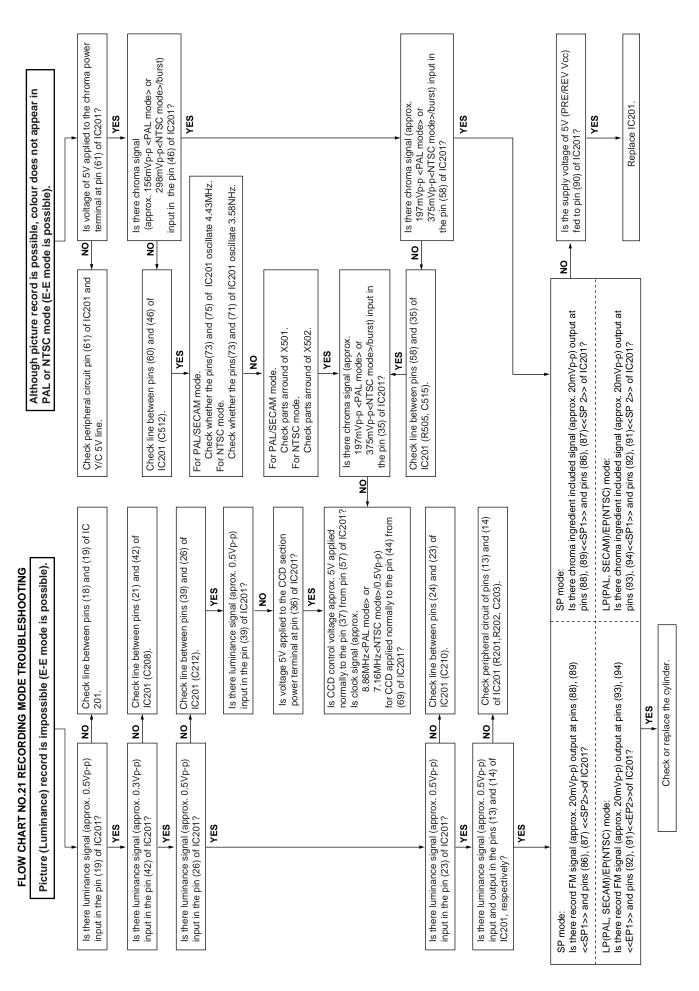


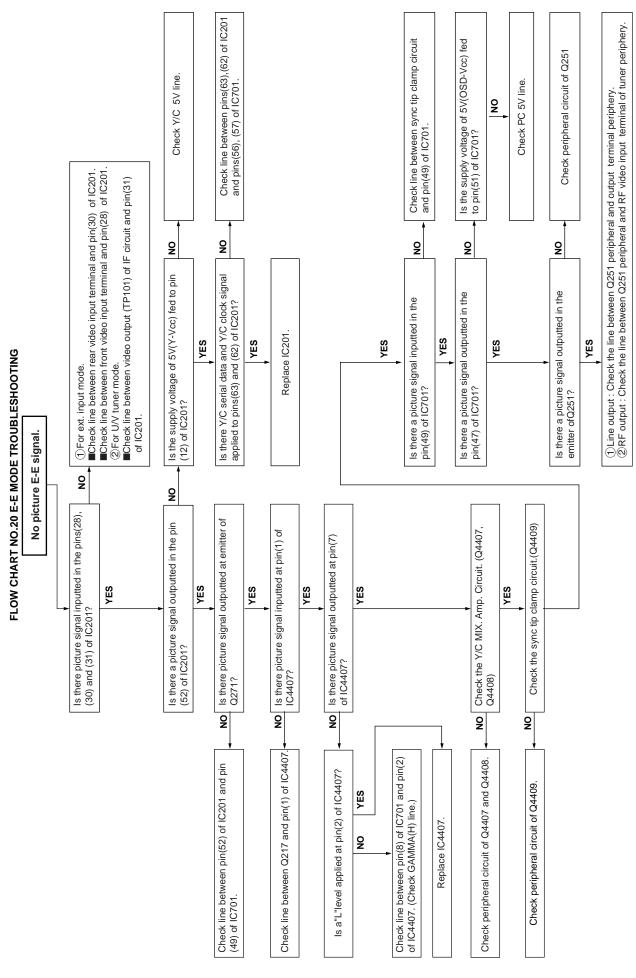


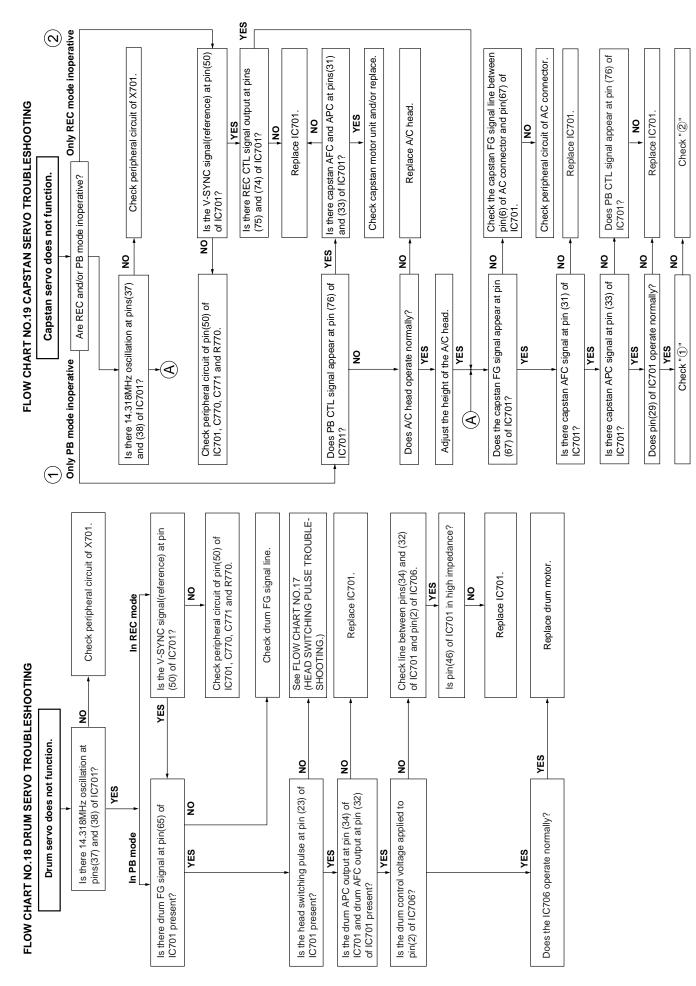


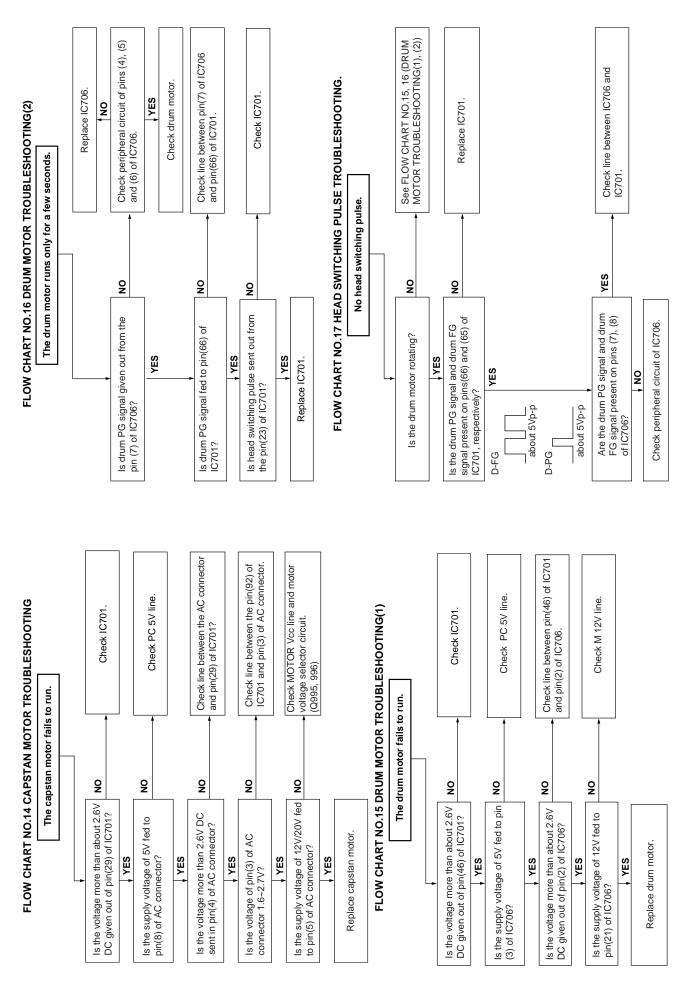


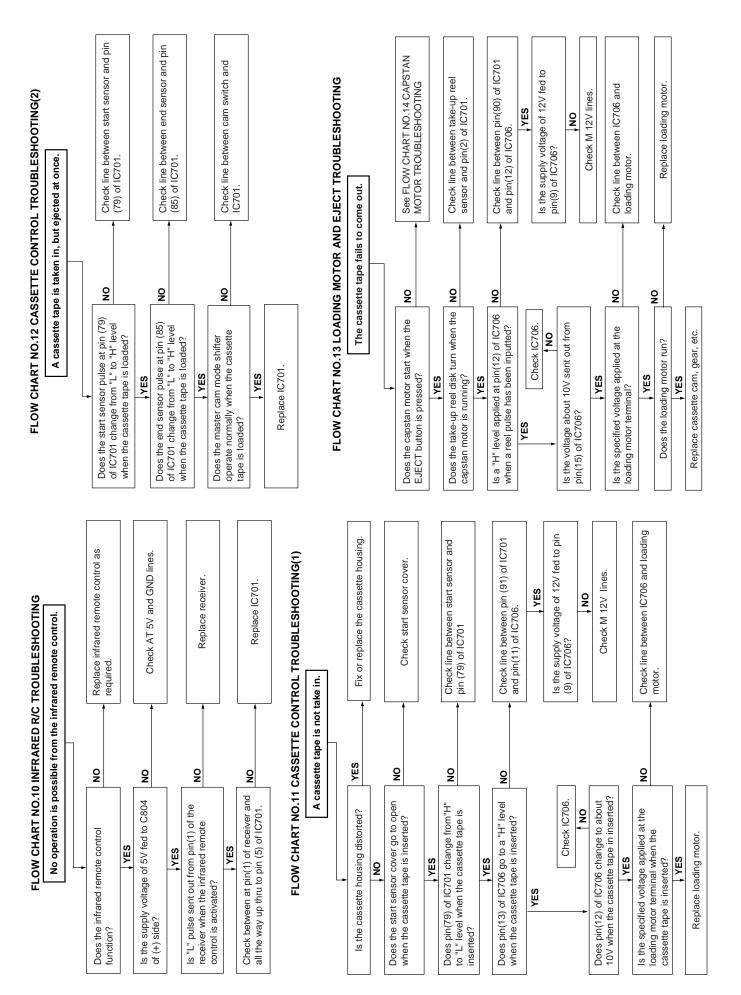


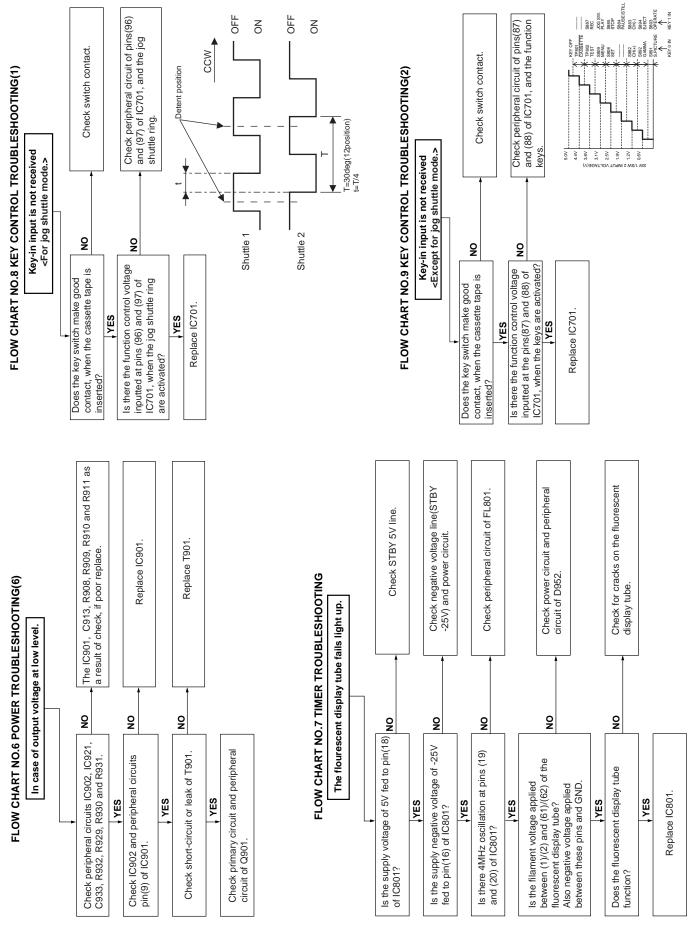




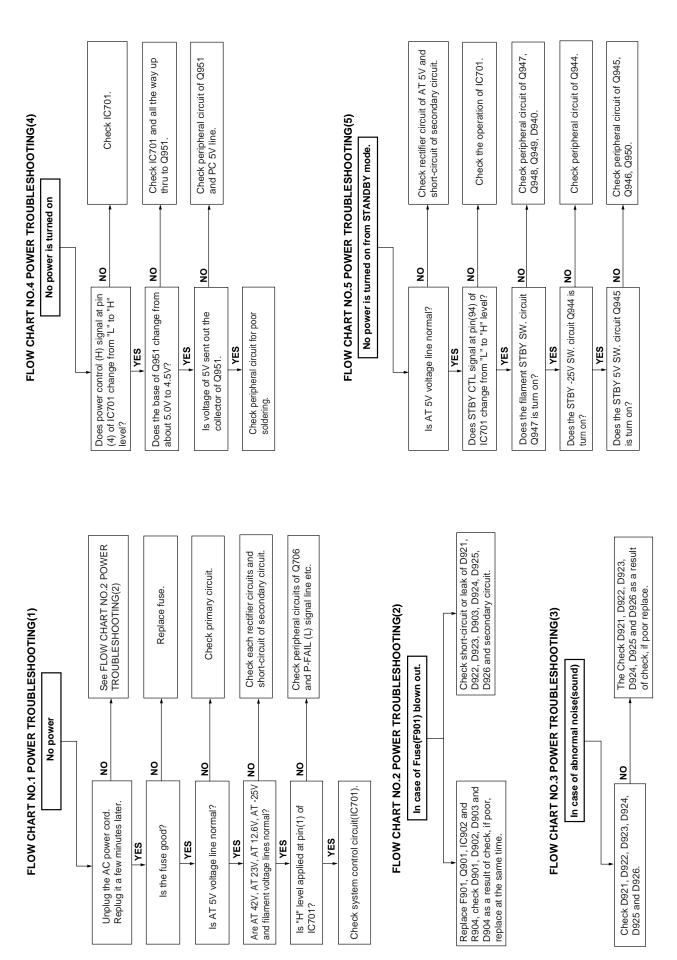




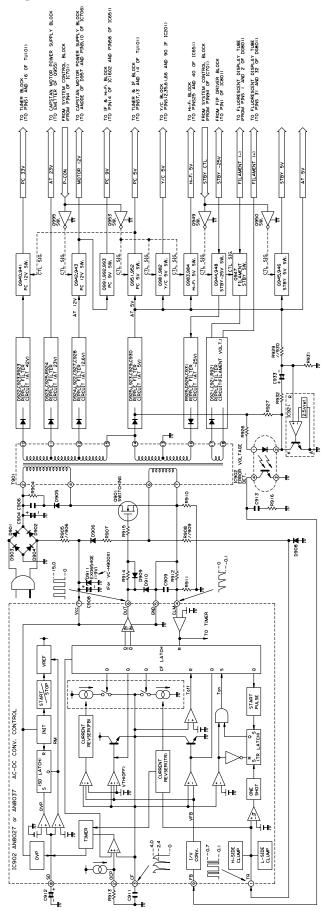




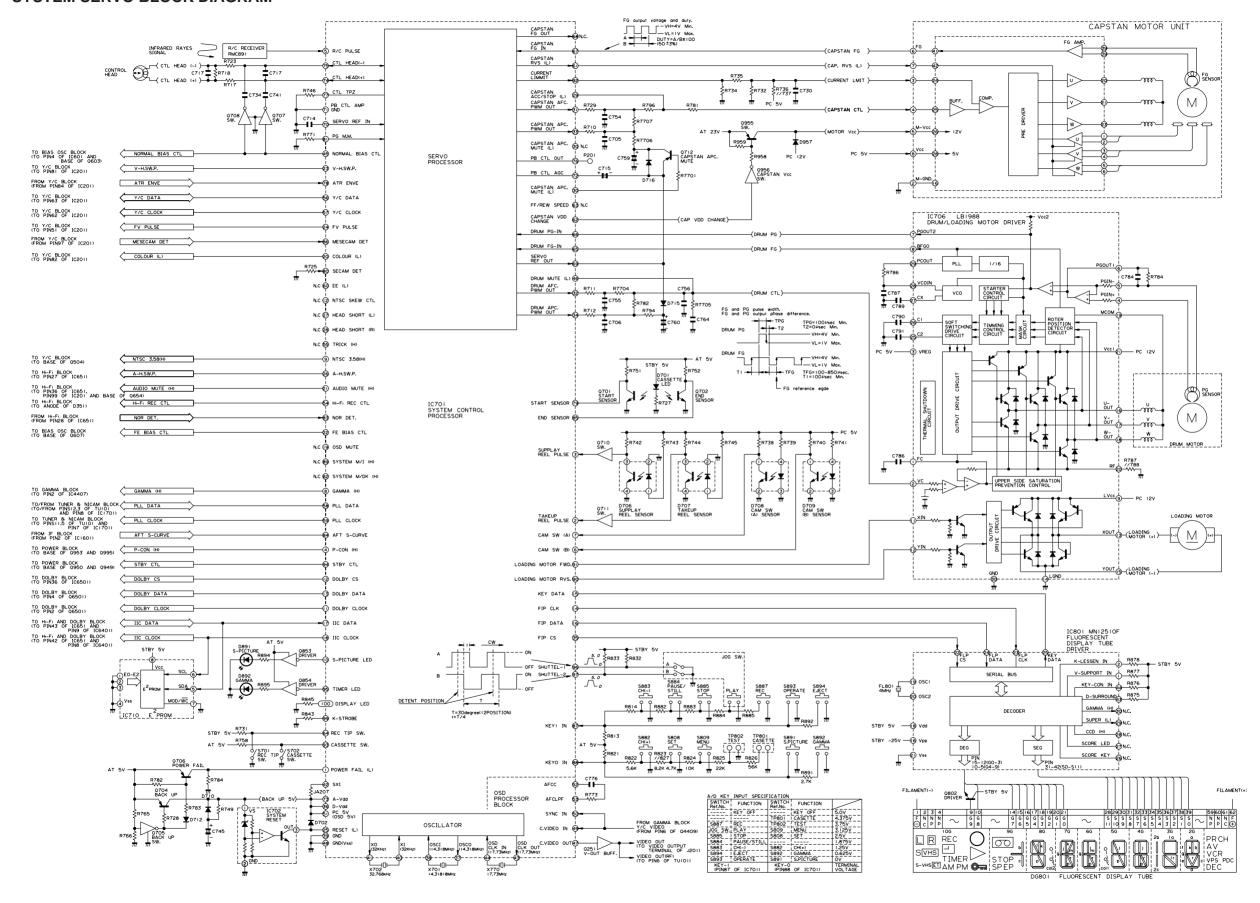
# 7. TROUBLESHOOTING



# 8. BLOCK DIAGRAM POWER CIRCUIT BLOCK DIAGRAM



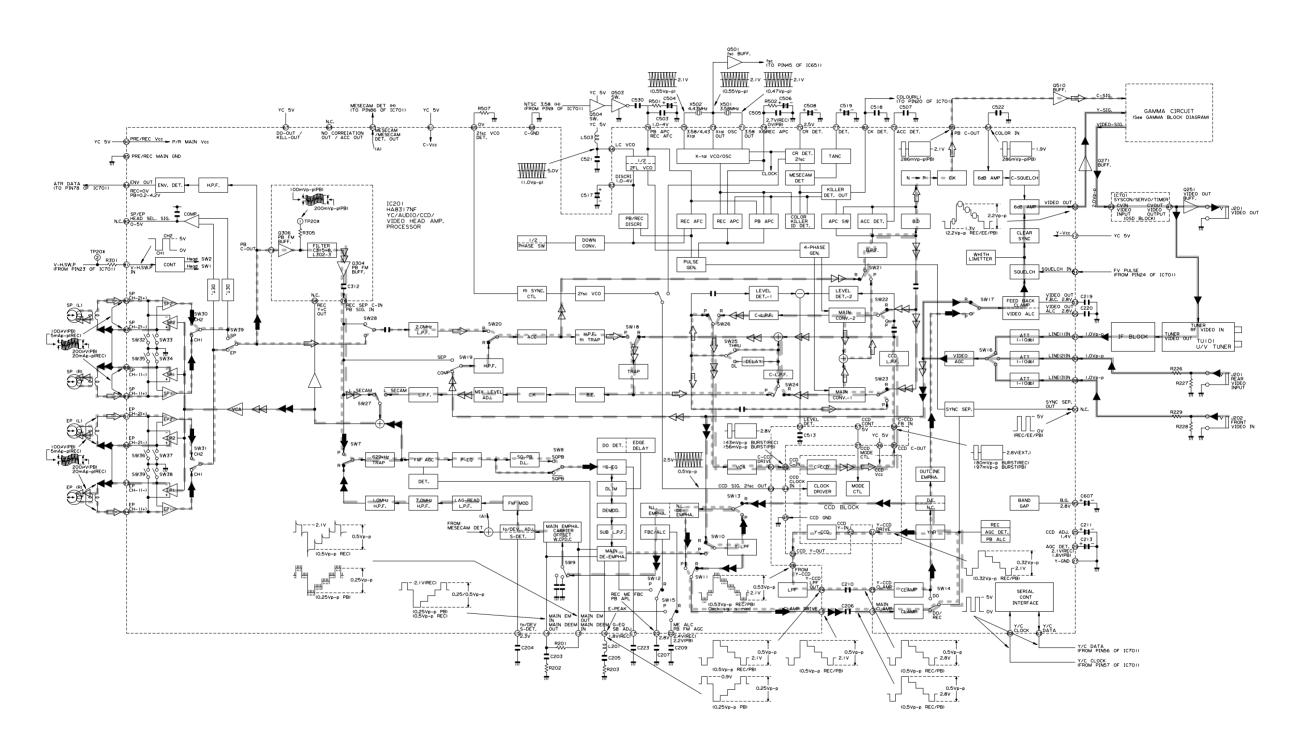
### SYSTEM SERVO BLOCK DIAGRAM



54 55

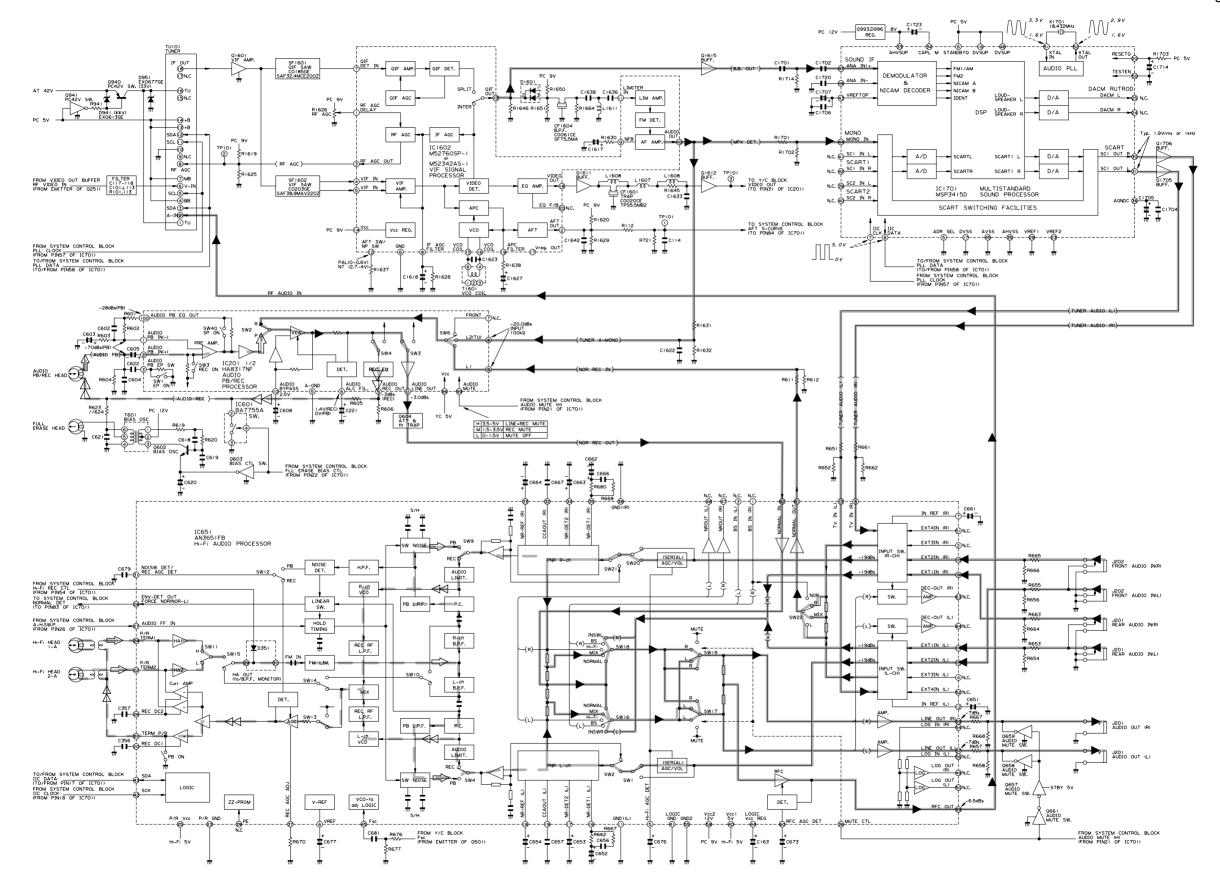
### SIGNAL FLOW BLOCK DIAGRAM



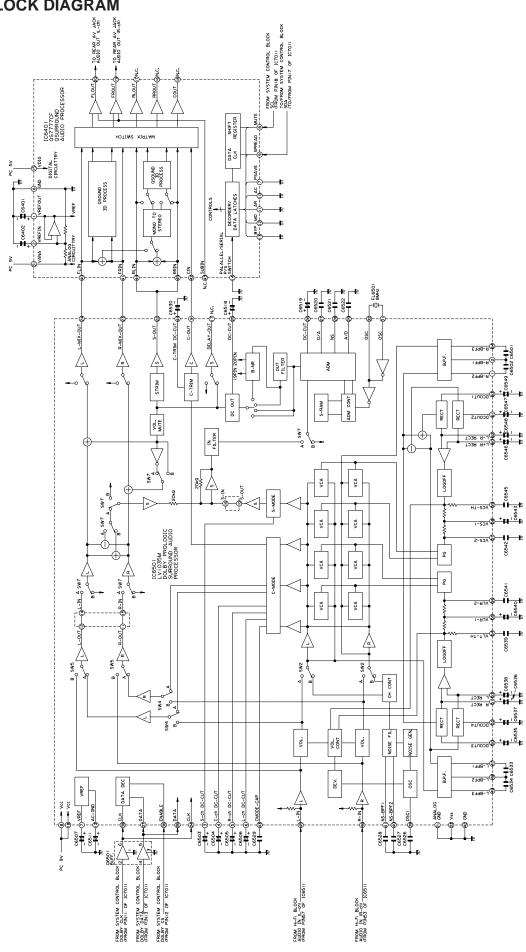


### **AUDIO BLOCK DIAGRAM**

→ EE Signal → → → → PB Audio Signal ▷ REC Audio Signal



### **DOLBY BLOCK DIAGRAM**



### **SCHEMATIC DIAGRAM**

### IMPORTANT SAFETY NOTICE:

BE SURE TO USE GENUINE PARTS FOR SE-CURING THE SAFETY AND RELIABILITY OF THE SFT

PARTS MARKED WITH " A " AND PARTS SHADED (IN BLACK) ARE ESPECIALLY IMPORTANT FOR MAINTAINING THE SAFETY AND PROTECTING ABILITY OF THE SET.

BE SURE TO REPLACE THEM WITH PARTS OF SPECIFIED PART NUMBER.

### SAFETY NOTES:

- 1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
- 2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

### NOTES:

- 1. The unit of resistance "ohm" is omitted (k=1000 ohm, M=1 Meg ohm).
- 2. All resistors are 1/8 watt, unless otherwise noted.
- 3. The unit of capacitance "F" is omitted ( $\mu = \mu F$ ,  $p = \mu \mu F$ ).
- 4. The values in parentheses are the ones in the PB mode; the values without parentheses are the ones in the REC mode.

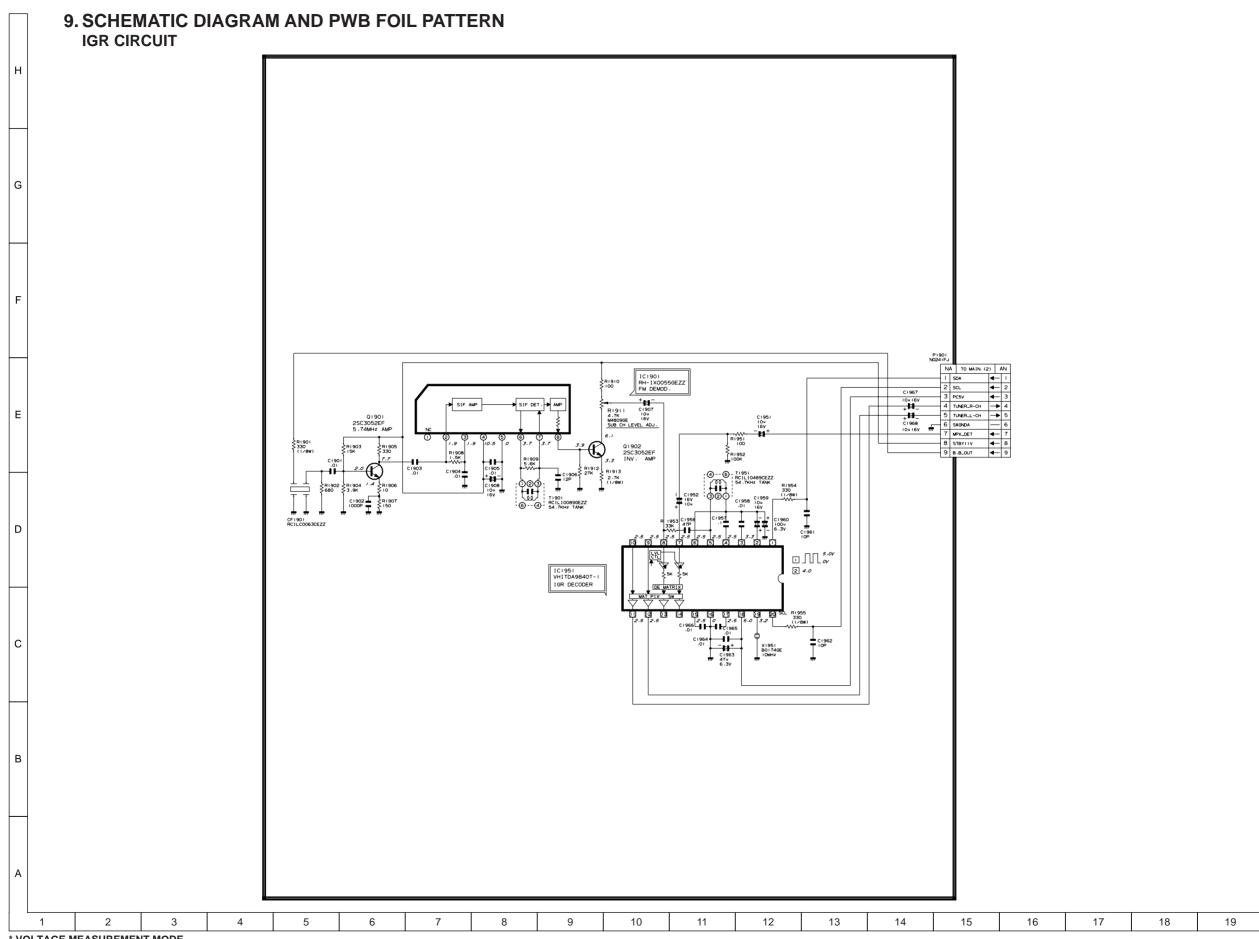
### **VOLTAGE MEASUREMENT CONDITIONS:**

- 1. DC voltages are measured between points indicated and chassis ground by VTVM, with AC110~240V, 50/60Hz supplied to unit and all controls are set to normal viewing picture unless otherwise noted.
- 2. Voltages are measured with 10000μV B & W or colour noted.

WAVEFORM MEASUREMENT CONDITIONS: 10000μV 87.5 percent modulated colour bar signal is fed into tuner.

### CAUTION:

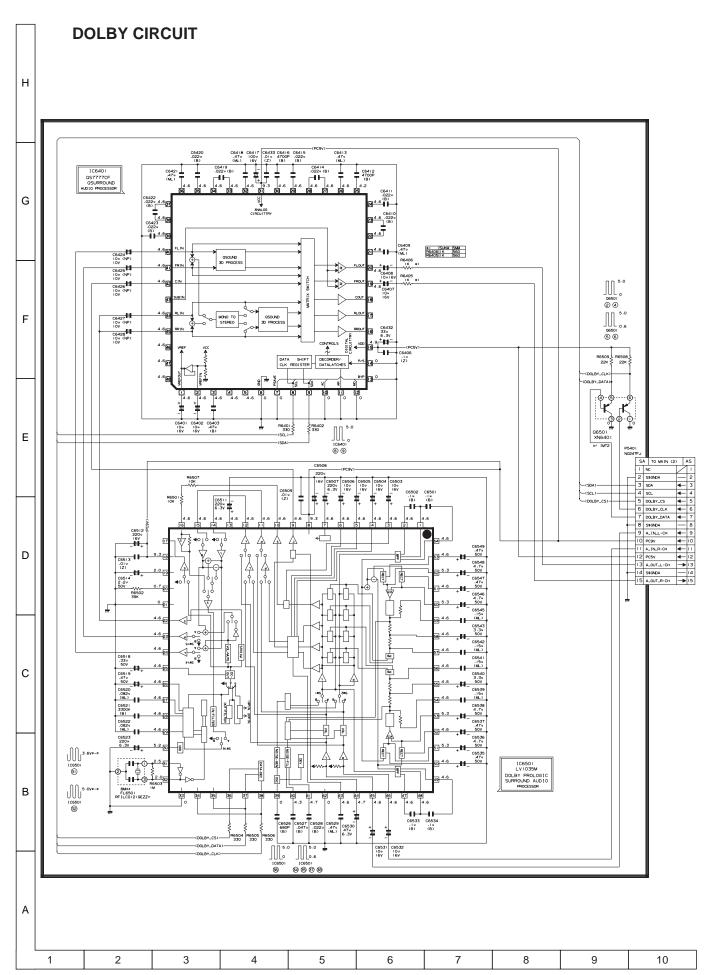
This circuit diagram is original one. Therefore there may be a slight difference from yours.



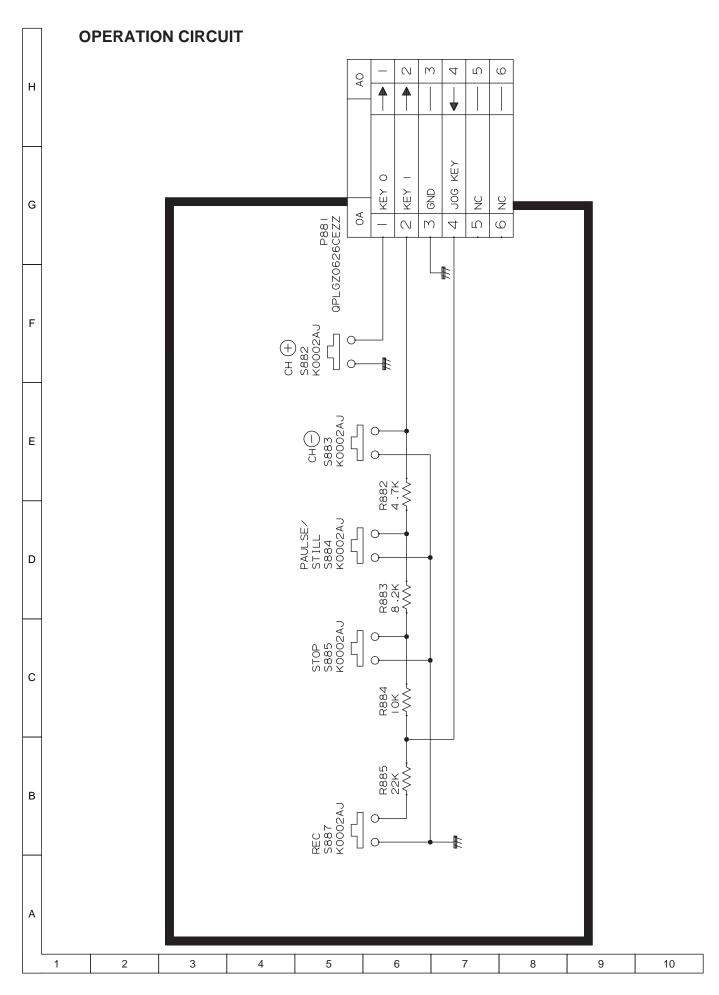
\* VOLTAGE MEASUREMENT MODE

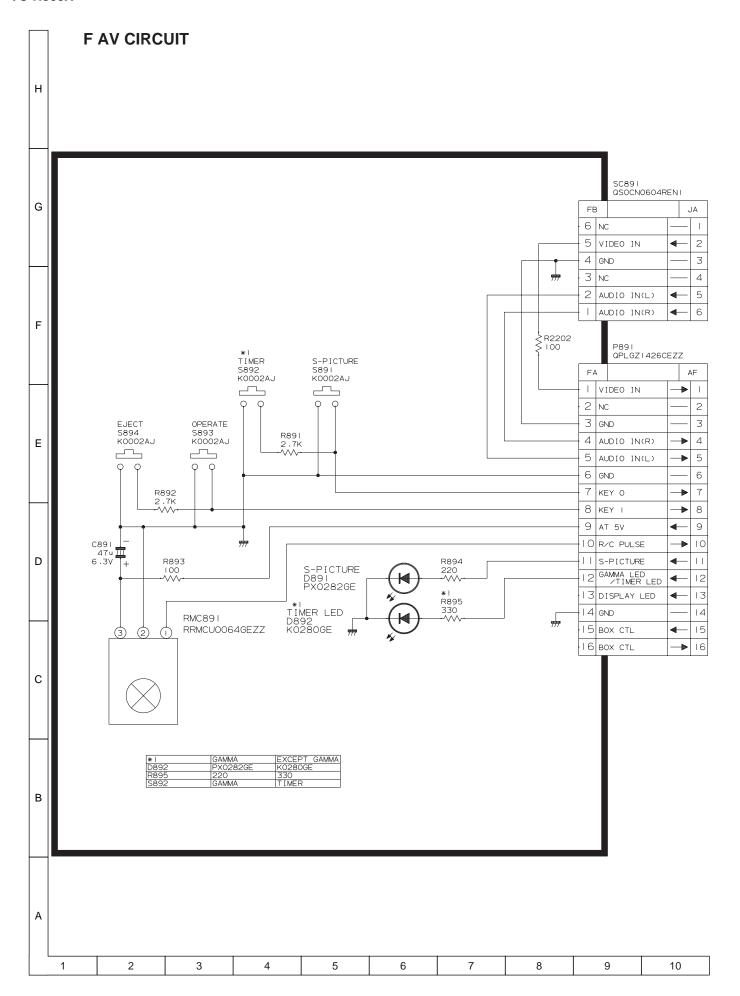
PB ..... Parentheses ( )
REC ... Without Parentheses

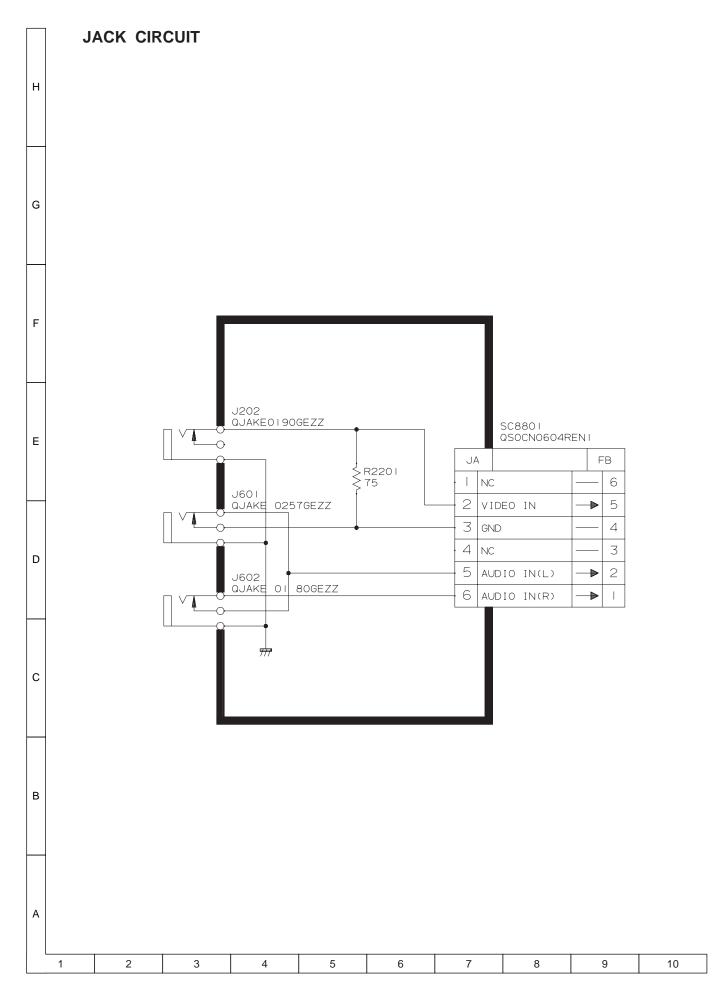
**VC-H800X** 

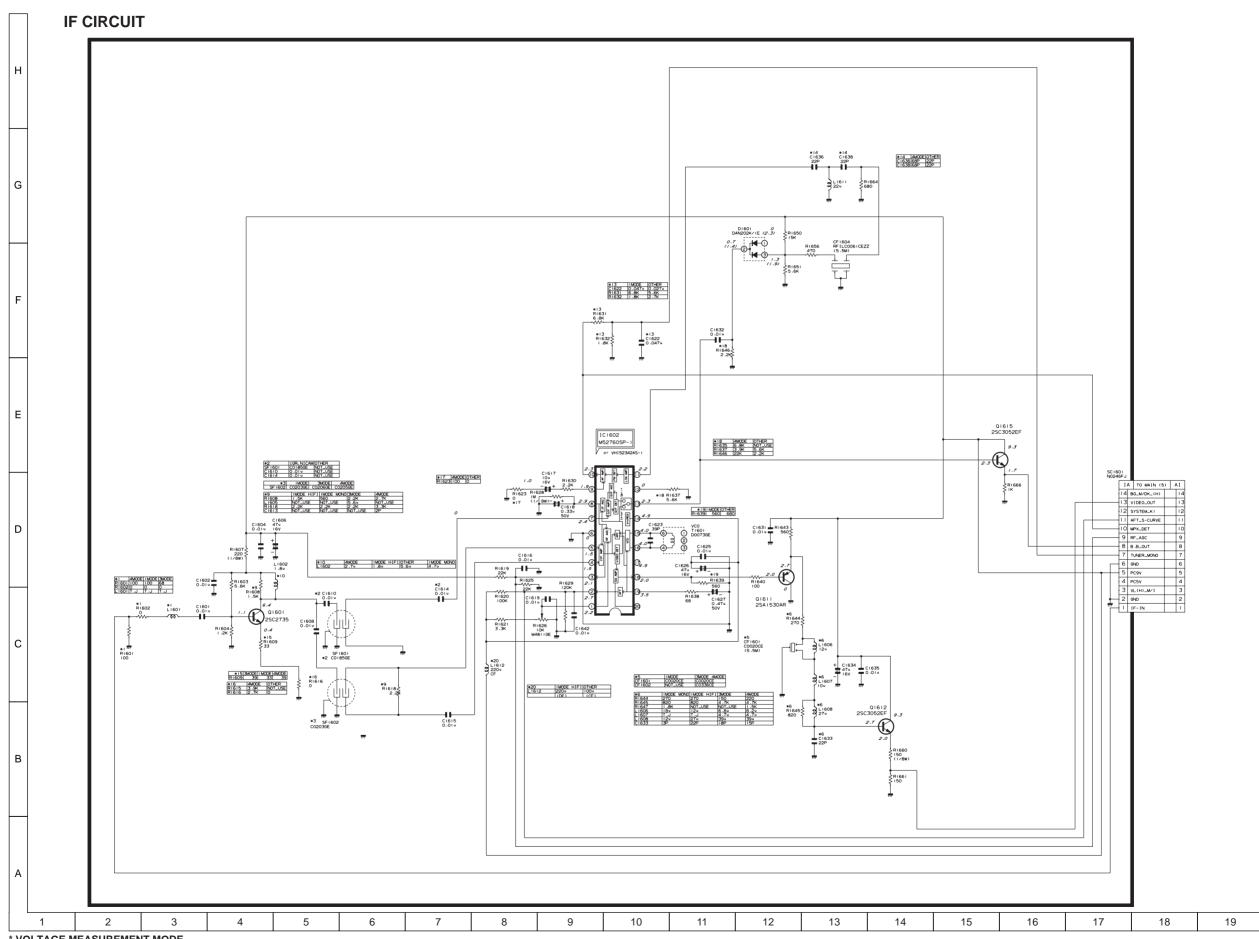


PB ..... Parentheses ( ) REC ... Without Parentheses





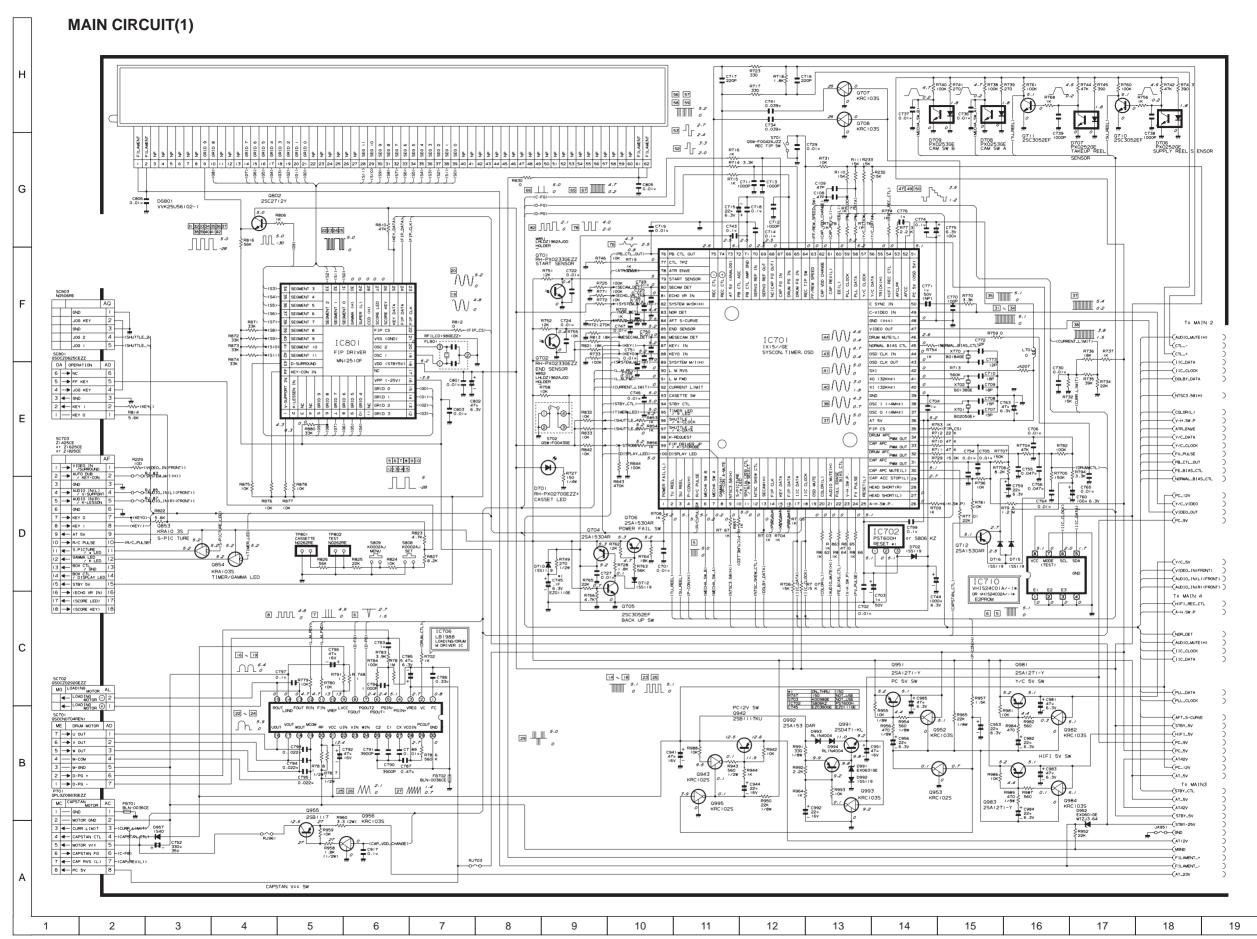




\* VOLTAGE MEASUREMENT MODE

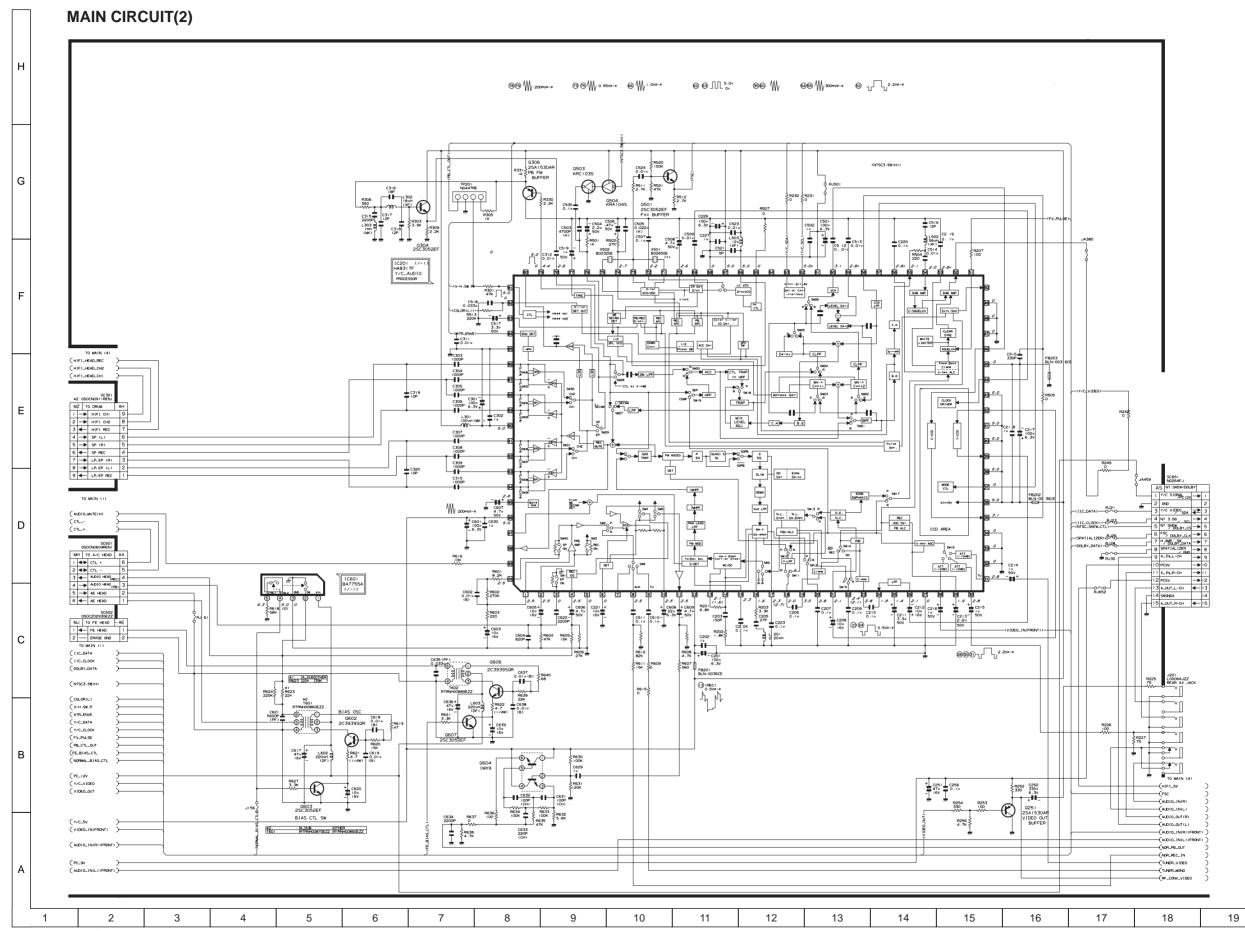
PB ..... Parentheses ( ) **REC ... Without Parentheses** 

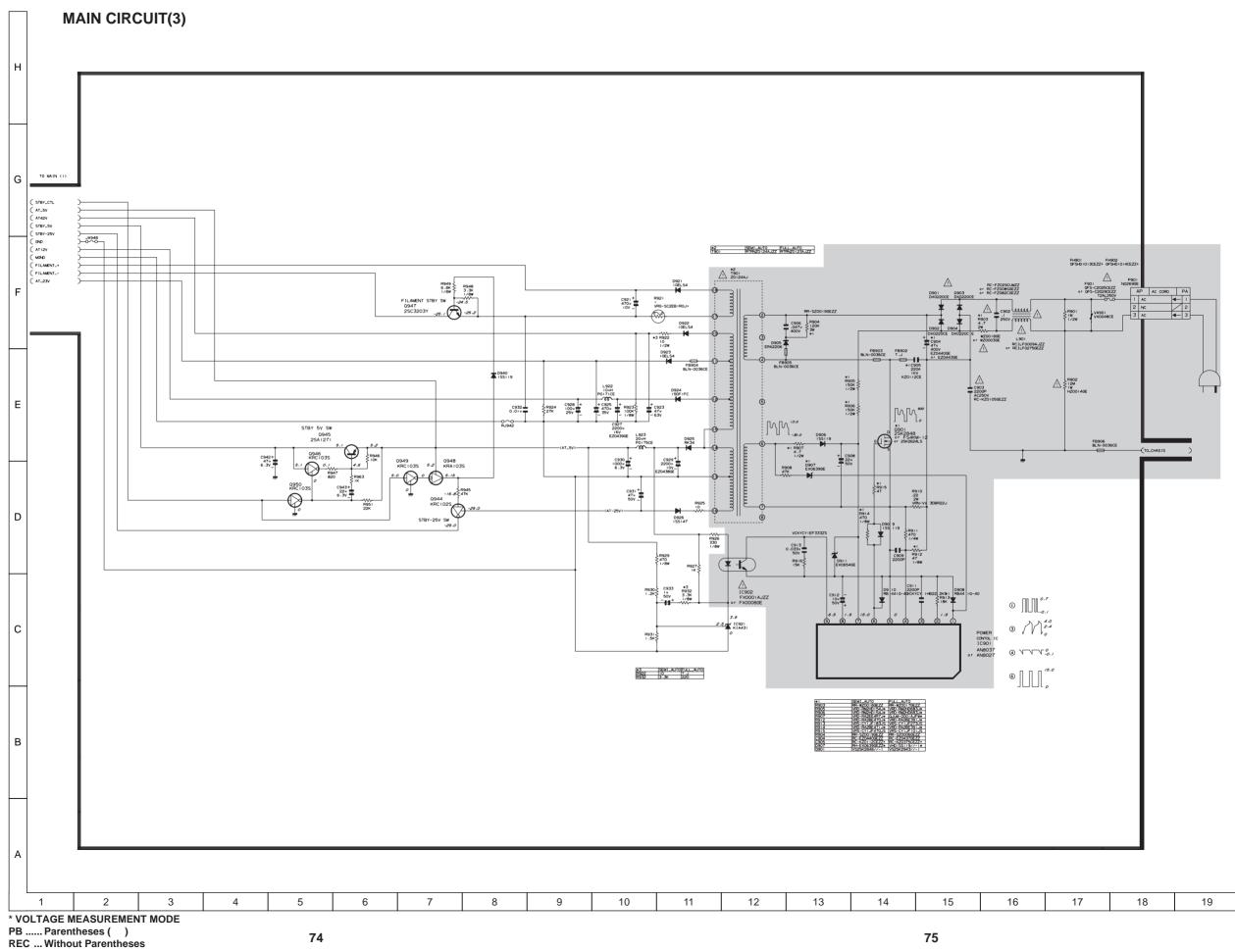
68



\* VOLTAGE MEASUREMENT MODE

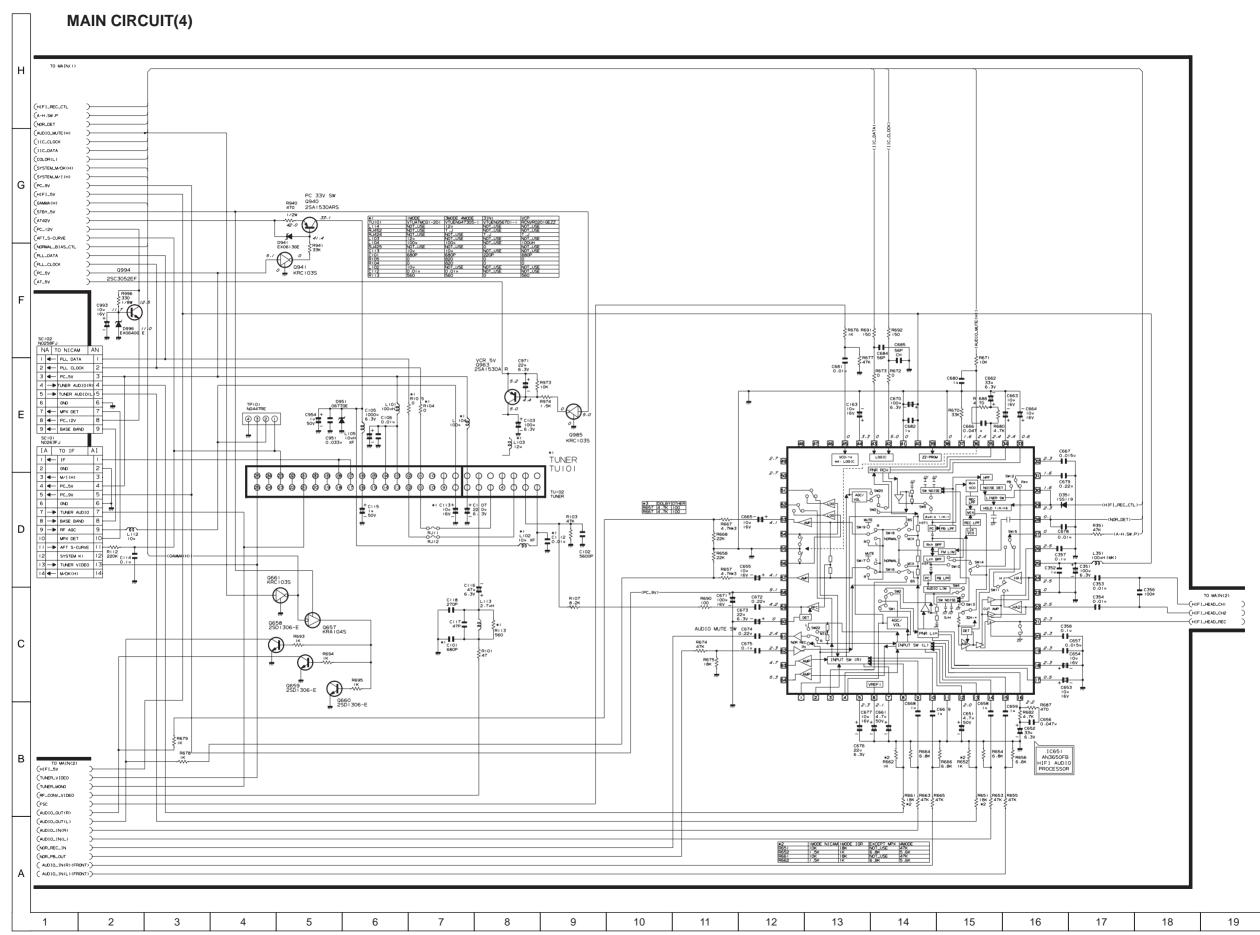
PB ..... Parentheses ( )
REC ... Without Parentheses

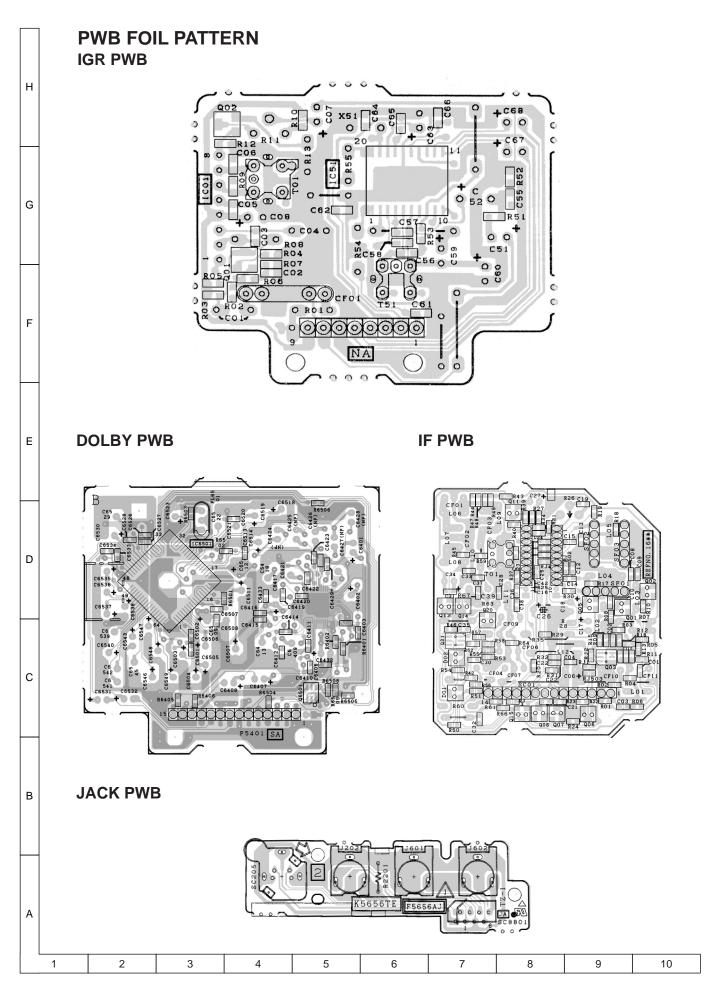




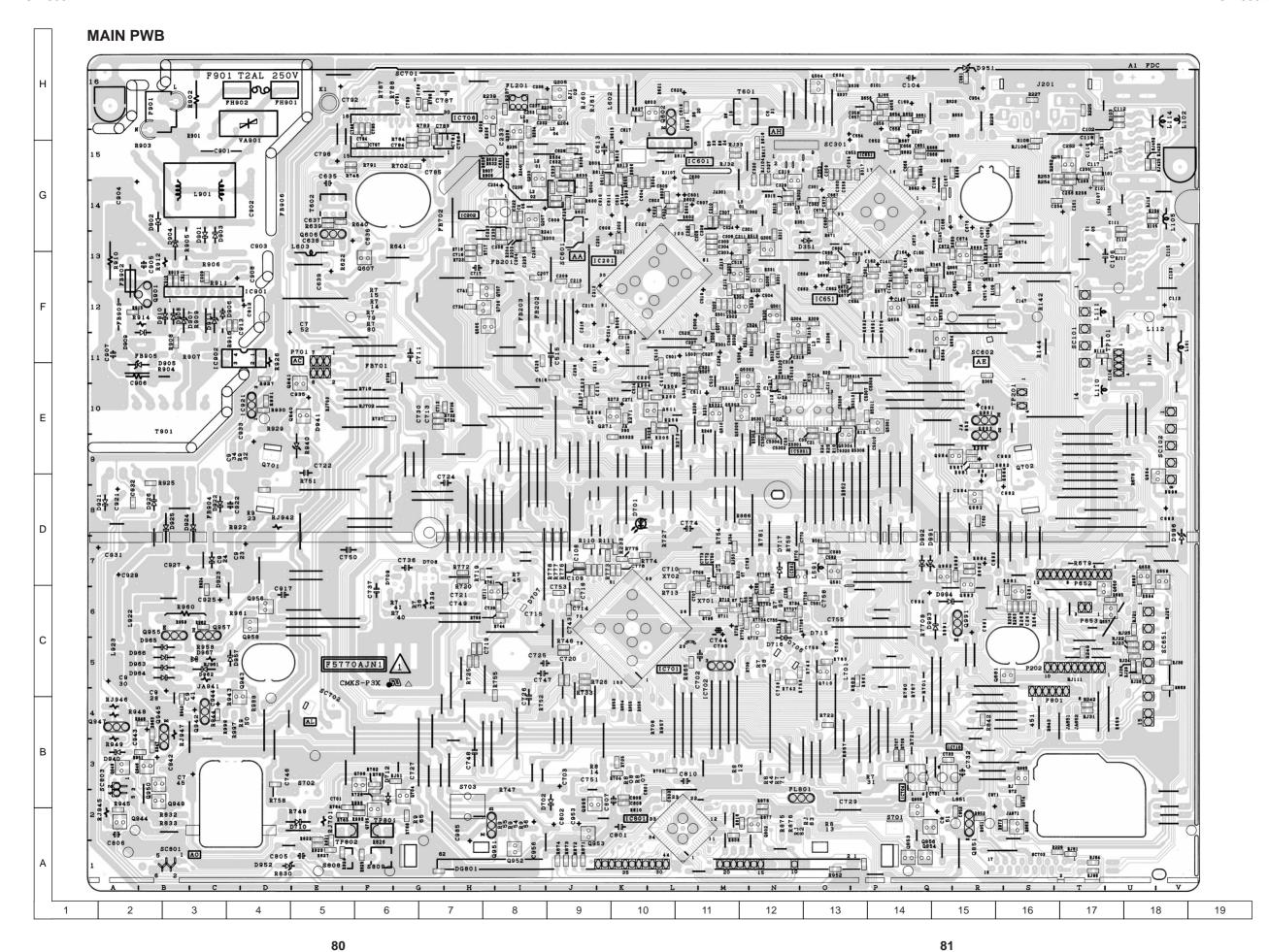
74

VC-H800X





# **OPERATION PWB** Н G F **FAV PWB** Е PISPLAY FUCATZ-1 D R220 С В 2 3 6 5 9 10



### 10. REPLACEMENT PARTS LIST PARTS REPLACEMENT

Parts marked with " \( \! \) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

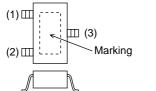
### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

> 1. MODEL NUMBER 2. REF. NO. 3. PART NO. 4. DESCRIPTION

5. PRICE CODE

### **HOW TO IDENTIFY CHIP** TRANSISTORS AND DIODES BY ITS MARKING



(1) Base/Input

(2) Emitter/Ground

(3) Collector/Output

Fig. 1

Package Marking Parts No. FQ Fig. 1 VS2SA1037KQ-1 Fig. 1 BQ VS2SC2412KQ-1

MARK ★: SPARE PARTS-DELIVERY SECTION

Ref. No. Part No. Description Code

### PRINTED WIRING BOARD ASSEMBLIES

(NOT REPLACEMENT ITEM)

DUNTK5528TEV2 IGR Unit DUNTK5550TE6D **DOLBY Unit** Operation Unit DUNTK5611TEV7 DUNTK5612TEVC F AV Unit DUNTK5656TEV6 Jack Unit DUNTK5767TEV1 IF Unit DUNTK5770TEV5 Main Unit

## **DUNTK5528TEV2**

R1955

P1901

VRD-RA2BE331J

Ref. No.

Part No.

Description

Code

INTEGRATED CIRCUITS RH-iX0055GEZZ IC1901 J I.C. IC1951 VHITDA9840T-1 V TDA9840T AS **TRANSISTORS** Q1901 VS2SC3052EF-1 V 2SC3052EF AC Q1902 VS2SC3052EF-1 2SC3052EF AC **PACKAGED CIRCUITS** X1951 RCRSB0174GEZZ J Crystal AF

**IGR Unit** 

**COILS AND TRANSFORMERS** CF1901 RFILC0063CEZZ V Filter AG T1901 RCILI0089GEZZ J IF Coil AD T1951 IF Coil ΑE RCILI0489CEZZ **CONTROLS** R1911 RVR-M4809GEZZ J Variable Resistor AC **CAPACITORS** C1901 VCKYD41CY103N V 0.01 16V Ceramic AA C1902 VCKYCY1HB102K V 1000p 50V Ceramic AA C1903 VCKYD41CY103N V 0.01 16V Ceramic AA C1904 VCKYD41CY103N 0.01 16V Ceramic AAC1905 VCKYCY1EB103K V 0.01 25V Ceramic AA C1906 VCCCCY1HH120J 12p 50V Ceramic AA VCEAEM1CW106M V C1907 16V Electrolytic AR 10 Electrolytic C1908 VCEAEM1CW106M V 10 16V AB C1951 VCEAEM1CW106M V 16V Electrolytic AB 10 VCEAEA1CW106M V C1952 10 16V Electrolytic AB C1956 VCCCCY1HH470J 50V AA 47p Ceramic C1957 VCKYCY1EF104Z 0.1 25V Ceramic AAC1958 VCKYCY1HF103Z 0.01 50V Ceramic AA C1959 VCEAEM1CW106M V AB 10 16V Electrolytic VCEAEM0JW107M V C1960 100 6.3V Electrolytic AB C1961 VCCCCY1HH100D V 10p 50V Ceramic AA C1962 VCCCCY1HH100D V 10p 50V Ceramic AAC1963 VCEAEM0JW476M V 47 6.3V Electrolytic AB C1964 VCKYCY1HF103Z V 0.01 50V Ceramic AA C1965 VCKYCY1EB103K 0.01 25V Ceramic AAC1966 VCKYCY1EB103K \/ 0.01 25V Ceramic AA C1967 VCEAEM1CW106M V 10 16V Electrolytic AB VCEAEM1CW106M V 10 C1968 16V Electrolytic AB RESISTORS R1901 VRD-RA2BE331J 330 1/8W Carbon V AA R1902 VRS-CY1JF681J V 680 1/16W Metal Oxide AA R1903 VRS-CY1JF153J 15k 1/16W Metal Oxide AA 3.9k 1/16W Metal Oxide R1904 VRS-CY1JF392J AA R1905 VRS-CY1JF331J 330 1/16W Metal Oxide AAR1906 VRS-CY1JF100J V 10 1/16W Metal Oxide AA R1907 VRS-CY1JF151J 1/16W Metal Oxide 150 AA VRS-CY1JF152J R1908 V 1/16W Metal Oxide 1.5k AA R1909 VRS-CY1JF562J V 5.6k 1/16W Metal Oxide AA VRS-CY1JF101J 1/16W Metal Oxide R1910 V 100 AA R1912 VRS-CY1JF273J 27k 1/16W Metal Oxide AA R1913 VRD-RA2BE272J 2.7k 1/8W Carbon AA R1951 VRS-CY1JF101J V 100 1/16W Metal Oxide AAR1952 VRS-CY1JF104J 100k 1/16W Metal Oxide AAR1953 VRS-CY1JF333J V 33k 1/16W Metal Oxide AA R1954 VRD-RA2BE331J 330 1/8W Carbon AA

### DUNTK5550TE6D **DOLBY Unit** INTEGRATED CIRCUITS IC6401 ΒK VHIQS7777CF-1 V QS7777CF V I.C. IC6501 VHILV1035M/-1 BE **TRANSISTORS** Q6501 VSIMT2////-1 V IMT2 AB RFILC0121GEZZ FI 6501 J Filter AD **CAPACITORS** C6401 VCEAEM1CW106M V 10 16V Electrolytic AR C6402 VCEAEM1CW106M V 10 Electrolytic

V 330

**MISCELLANEOUS PARTS** 

QPLGN0241FJ00 V Plug, 9pin(NA)

1/8W Carbon

AA

AG

ef. No.	Part No.	*	Descrip	ption	Code	Ref. No.	Part No.	*	Description	Co
C6406	VCKYCY1EF104Z	V	0.1 25V C	Ceramic	AA	R6501	VRS-CY1JF103J	V 10k		
C6407	VCEAEM1CW106	ΝV	10 16V E	Electrolytic	AB	R6502	VRS-CY1JF393J	V 39k		
C6408	VCEAEM1CW106	ΝV	10 16V E	Electrolytic	AB	R6503	VRS-CY1JF105J	V 1M	1/16W Metal Oxid	e /
C6409	VCFYSA1HB474J	V	0.47 50V N	M.Polypro	AC	R6504	VRS-CY1JF331J	V 330	1/16W Metal Oxid	e /
C6410	VCKYCY1EB223K			Ceramic	AA	R6505	VRS-CY1JF331J	V 330		
C6411	VCKYCY1EB223K			Ceramic	AA	R6506	VRS-CY1JF331J	V 330		
C6412	VCKYCY1HB472K			Ceramic	AA	R6507	VRS-CY1JF103J	V 10k		
C6413	VCFYSA1HB474J			M.Polypro	AC	R6508	VRS-CY1JF223J	V 22k		
C6414	VCKYCY1EB223K			Ceramic	AA	R6509	VRS-CY1JF223J	V 22k	1/16W Metal Oxid	е
C6415	VCKYCY1EB223K			Ceramic	AA					
C6416	VCKYCY1HB472K	V		Ceramic	AA		MISCELLA			
C6417	VCEAEM1CW107	ΝV	100 16V E	Electrolytic	AB	P5401	QPLGN0247FJ00	V Plu	g, 15pin(SA)	
C6418	VCFYSA1HB474J	V	0.47 50V N	M.Polypro	AC					
C6419	VCKYCY1EB223K	V	0.022 25V (	Ceramic	AA					
C6420	VCKYCY1EB223K	V	0.022 25V (	Ceramic	AA					
C6421	VCFYSA1HB474J			M.Polypro	AC					
C6422	VCKYCY1EB223K			Ceramic	AA		DUNTA	<b>(5767TE</b>	3/4	
C6423	VCKYCY1EB223K			Ceramic	AA		DUNIF	(3/6/1E	V I	
							IF.	- Unit		
C6424	VCE9EM1AW106N			Elect.(N.P)	AB		••	•		
C6425	VCE9EM1AW106N			Elect.(N.P)	AB					
C6426	VCE9EM1AW106N	ΛV	10 10V E	Elect.(N.P)	AB		INTEGRAT	IED CIR	CUITS	
C6427	VCE9EM1AW106N	ΙV	10 10V E	Elect.(N.P)	AB	IC1602	VHIM52760SP-1	V M52	2760SP	
C6428	VCE9EM1AW106N	ΛV	10 10V E	Elect.(N.P)	AB					
C6432	VCEAEM0JW336N			Electrolytic			TRAN	ISISTOR	S	
C6433	VCKYCY1HF103Z			Ceramic	AA	Q1601	VS2SC2735//1E	V 2S0	-	
C6501	VCKYCY1CB104K			Ceramic	AB	Q1611	VS2SA1530ARS1		A1530ARS	
C6502	VCKYCY1CB104K			Ceramic	AB			_		
						Q1612	VS2SC3052EF-1		C3052EF	
C6503	VCEAEM1CW106			Electrolytic	AB	Q1615	VS2SC3052EF-1	V 2S0	C3052EF	
C6504	VCEAEM1CW106			Electrolytic	AB		_			
C6505	VCEAEM1CW106			Electrolytic	AB		D	IODE		
C6506	VCEAEM1CW106	ΝV	10 16V E	Electrolytic	AB	D1601	VHDDAN202K/1E	V DAI	N202K	
C6507	VCEAEM0JW227N	1 V	220 6.3V E	Electrolytic	AB					
C6508	VCEAGA1CW227I	ΛV	220 16V E	Electrolytic	AC		C	OILS		
C6509	VCKYCY1HF103Z	V	0.01 50V C	Ceramic	AA	CF1601	RFILC0020CEZZ	V Filte	ar a	
C6511	VCEAEM0JW227N			Electrolytic	AB	CF1604		V Filte		
C6512	VCEAGA1CW227I			Electrolytic	AC	L1602				
C6513	VCKYCY1HF103Z			Ceramic	AA		VP-XF1R8K0000		aking 1.8μH	
C6514					AB	L1606	VP-XF120J0000		aking 12µH	
	VCEAEM1HW225I			Electrolytic		L1608	VP-XF270J0000		aking 27μH	
C6518	VCEAEM1HW334I			Electrolytic	AB	L1611	VP-XF220J0000		aking 22μH	
C6519	VCEAEM1HW474			Electrolytic	AB	L1612	VP-DF221K0000	V Pea	aking 220μH	
C6520	VCFYSA1HB823J			M.Polypro	AB	SF1601	RFILC0185GEZZ	J Filte	er	
C6521	VCKYCY1HB332K	V	3300p 50V C	Ceramic	AA	SF1602		J Filte	er	
C6522	VCFYSA1HB823J	V	0.082 50V N	M.Polypro	AB					
C6523	VCEAEM0JW227N	1 V	220 6.3V E	Electrolytic	AB		TRANS	FORME	RS	
C6526	VCKYCY1HB681K	V		Ceramić	AA	T1601		_	_	
C6527	VCKYCY1CB473K			Ceramic	AA	T1601	RCILD0073GEZZ	J Det	ection Coil	
C6528	VCKYCY1EB223K				AA					
							CON	NTROLS		
C6529	VCFYSA1HB474J			M.Polypro	AC	R1626	RVR-M4811GEZZ	Z J Var	iable Resistor	
C6530	VCEAEM0JW476N			Electrolytic	AB					
C6531	VCEAEM1CW106			Electrolytic	AB		CAP	ACITOR	S	
C6532	VCEAEM1CW106			Electrolytic	AB	C1601	VCKYCY1EB103k	< V 0.0	1 25V Ceramic	
C6533	VCKYCY1CB104K			Ceramic	AB	C1602	VCKYCY1HF103Z			
C6534	VCKYCY1CB104K	V	0.1 16V C	Ceramic	AB	C1604	VCKYCY1HF103Z			
C6535	VCEAEM1HW474	ΝV	0.47 50V F	Electrolytic	AB	C1606	VCEAEM1CW476		16V Electrolytic	
C6536	VCEAEM1HW475I			Electrolytic	AB	C1608	VCKYCY1EB103k			
C6537	VCEAEM1HW474			Electrolytic	AB					
C6538	VCEAEM1HW475			Electrolytic	AB	C1610	VCKYCY1EB103k			
C6539	VCFYSA1HB154J			M.Polypro	AB	C1614	VCKYCY1EB103k			
C6540					AB	C1615	VCKYCY1EB103k			
	VCEVENTHW335I			Electrolytic		C1616	VCKYCY1HF103Z			
C6541	VCFYSA1HB154J			M.Polypro	AB	C1617	VCEAEM1CW106	SM V 10	16V Electrolytic	
C6542	VCFYSA1HB154J			M.Polypro	AB	C1618	VCEAEM1HW334	M V 0.3	3 50V Electrolytic	
C6543	VCEAEM1HW335I			Electrolytic	AB	C1619	VCKYCY1HF103Z		•	
C6545	VCFYSA1HB154J			M.Polypro	AB	C1622	VCKYCY1CB473k			
C6546	VCEAEM1HW475I	ΝV	4.7 50V E	Electrolytic	AB	C1623	VCCCCY1HH390			
C6547	VCEAEM1HW474I	ΝV	0.47 50V E	Electrolytic	AB	C1625	VCKYCY1HF103Z			
C6548	VCEAEM1HW475I			Electrolytic	AB					
C6549	VCEAEM1HW474			Electrolytic	AB	C1626	VCEAEA1CW476		16V Electrolytic	
20070	· OL/(LIVITIVV+/4)	*: V	5.71 JUV L		, (	C1627	VCEAEM1HW474			
	RES	ST	ORS			C1631	VCKYCY1HF103Z			
D6404				Motel Outel		C1632	VCKYCY1EB103k	< V 0.0	1 25V Ceramic	
R6401	VRS-CY1JF331J		330 1/16W N			C1633	VCCCCY1HH220	J V 22p	50V Ceramic	
R6402	VRS-CY1JF331J	V		Metal Oxide		C1634	VCEAEM1CW476		16V Electrolytic	
R6405	VRS-CY1JF561J		560 1/16W N			C1635	VCKYCY1HF103Z		•	
R6406	VRS-CY1JF561J	V	560 1/16W N	Metal Oxide	e AA	C1636	VCCCCY1HH220			
D 0 4 0 7	VRS-CY1JF472J	V	4.7k 1/16W N	Metal Oxide	e AA					
R6407		-				C1638	VCCCCY1HH220	J V 22p		1
R6407 R6408	VRS-CY1JF223J	V	22k 1/16W N	Metal Oxide	e AA	C1642	VCKYCY1HF103Z	7 1/ ^ ^	1 50V Ceramic	

Ref. No.	Part No.	*	Description	Code	Ref. No.	Part No.	*	Description	Code
D4004		ISTORS	4/4000000000000000000000000000000000000	1- 00	R895	VRD-RA2BE221J			AA
R1601 R1602	VRS-CY1JF101J VRS-CY1JF000J	V 100 V 00	1/16W Metal Oxid		R2202	VRD-RA2BE101J	V	100 1/8W Carbon	AB
R1602	VRS-CY1JF562J		1/16W Metal Oxic			MISCELLA	NEO	US PARTS	
R1604	VRS-CY1JF122J		1/16W Metal Oxid		P891	QPLGZ1426CEZZ			AE
R1607	VRD-RA2BE221J		1/8W Carbon	AA	RMC89	1 RRMCU0064GEZ		REMOTE RECEIVER	AG
R1608	VRS-CY1JF152J		1/16W Metal Oxid		S891	QSW-K0002AJZZ		Switch, S-Picture	AD
R1609	VRS-CY1JF330J	V 33	1/16W Metal Oxid		S892	QSW-K0002AJZZ			AD
R1616	VRS-CY1JF000J	V 00	1/16W Metal Oxid		S893	QSW-K0002AJZZ		Switch, OPERATE	AD
R1618 R1619	VRS-CY1JF222J VRS-CY1JF223J		1/16W Metal Oxid		S894 SC891	QSW-K0002AJZZ QSOCN0604REN			AD AB
R1620	VRS-CY1JF104J		1/16W Metal Oxid		30091	Q300N0004NEN	1 V	Socket, opin(1 b)	ΛD
R1621	VRS-CY1JF332J		1/16W Metal Oxio						
R1623	VRS-CY1JF000J	V 00	1/16W Metal Oxid			DUNT	<b>(</b> 565	STEVS	
R1625	VRS-CY1JF223J		1/16W Metal Oxid						
R1628	VRD-RA2BE105J	V 1M	1/8W Carbon	AA		Ja	ck U	nit	
R1629 R1630	VRS-CY1JF124J VRS-CY1JF222J		1/16W Metal Oxid 1/16W Metal Oxid			DEC	LOT.	200	
R1631	VRS-CY1JF682J		1/16W Metal Oxid		D0004	VRD-RA2BE750J	SIST		^ ^
R1632	VRS-CY1JF182J		1/16W Metal Oxio		R2201	VKD-KAZBE750J	V	75 1/8W Carbon	AA
R1637	VRS-CY1JF562J		1/16W Metal Oxid	de AA		MISCELLA	NFO	US PARTS	
R1638	VRS-CY1JF680J	V 68	1/16W Metal Oxid		J202	QJAKE0190CEZZ			AE
R1639	VRS-CY1JF561J		1/16W Metal Oxid		J601	QJAKE0257GEZZ		Jack	AE
R1640 R1643	VRS-CY1JF101J VRS-CY1JF561J		1/16W Metal Oxid		J602	QJAKE0180CEZZ		Jack	AE
R1644	VRS-CY1JF271J		1/16W Metal Oxid		SC8801	QSOCN0604REN	1 V	Socket, 6pin(JA)	AB
R1645	VRS-CY1JF821J		1/16W Metal Oxid						
R1646	VRS-CY1JF222J	V 2.2k	1/16W Metal Oxid	de AA					
R1650	VRS-CY1JF153J		1/16W Metal Oxid			DUNT	<b>(577</b>	OTEV5	
R1651	VRS-CY1JF562J		1/16W Metal Oxid						
R1656 R1660	VRS-CY1JF471J	V 470 V 150	1/16W Metal Oxid	ae AA AA		MA	IN U	Init	
R1661	VRD-RA2BE151J VRS-CY1JF151J	V 150	1/16W Metal Oxid			т	UNE	D	
R1664	VRS-CY1JF681J	V 680	1/16W Metal Oxid		NOTE:		_	N OWN ARE SUPPLIED A	SAN
R1666	VRS-CY1JF102J	V 1k	1/16W Metal Oxid	de AA	NOTE.			T INDEPENDENTLY	
	MICCELLA	NEOUS F	ADTO		TU101	VTUATMCG1-201	_		BH
SC1601	MISCELLAI QPLGN0246FJ00			AD					
301001	QFLGN0240FJ00	v Flug	, 14pin(IA)	AD		INTEGRA	ΓED	CIRCUITS	
					IC201	VHiHA8317F/-1		HA118317F	BA
	DUNT	(5611TE)	<i>J</i> 7		IC601	VHiBA7755A/-1	V	BA7755A	AE
	Oper	ation Uni	4		IC651 IC701	VHiAN3651FB-1 RH-iX1583GEZZ	V J	AN3651FBP MN101D02FSR	AU AZ
	Opera				IC702	VHiPST600H/-1		IC-PST600H-2	AE
	RES	ISTORS			IC704	VHiS24C01A/-1		S-24C01AFJ-TB	AF
R882	VRD-RA2BE472J		1/8W Carbon	AA	IC706	VHiLB1988//-1		LB1988	AQ
R883	VRD-RA2BE822J			AA	IC710	VHiS24C02A/-1		S-24C02AFJ-TB	AK
R884	VRD-RA2BE103J		1/8W Carbon	AA	IC801	VHiMN12510F-1		MN12510F	AM
R885	VRD-RA2BE223J	V 22k	1/8W Carbon	AA		VHiAN8037//-1 VHiKIA431//-1		AN8037 KIA431	AP AE
	MISCELLA	NEOUS E	ADTC		10321	VI III (I/A+O I//- I	٧	NIA+01	AL
P881	QPLGZ0626CEZZ			AF		TRAI	NSIT	ORS	
S882	QSW-K0002AJZZ		ch, CH +	AD	Q251	VS2SA1530ARS1		2SA1530ARS	AC
S883	QSW-K0002AJZZ		ch, CH –	AD	Q304	VS2SC3052EF-1	V		AC
S884	QSW-K0002AJZZ		ch, PAUSE/STILL	AD	Q306	VS2SA1530ARS1		2SA1530ARS	AC
S885	QSW-K0002AJZZ		ch, STOP	AD	Q501 Q503	VS2SC3052EF-1 VSKRC103S//-1		2SC3052EF KRC103S	AC AA
S887	QSW-K0002AJZZ	V Swit	cn, REC	AD	Q504	VSKRA104S//-1		KRA104S	AA
					Q602	VS2C3939SQR-1		2C3939SQ	AC
					Q603	VS2SC3052EF-1	V	2SC3052EF	AC
		(5612TE\	/C		Q604	VSiMX9////-1		IMX9	AC
	F A	V Unit			Q606	VS2C3939SQR-1	V		AC
					Q607 Q657	VS2SC3052EF-1 VSKRA104S//-1		2SC3052EF KRA104S	AC AA
D004		ODES	- P - d -	4.0	Q658	VS2SD1306-E1E		2SD1306-E	AD
D891 D892	RH-PX0282GEZZ RH-PX0282GEZZ			AC AC	Q659	VS2SD1306-E1E		2SD1306-E	AD
D092	KH-FAUZ0ZGEZZ	J FIIO	odiode	AC	Q660	VS2SD1306-E1E		2SD1306-E	AD
	CAPA	ACITORS	;		Q661	VSKRC103S//-1		KRC103S	AA
C891	VCEA9M0JW476N		6.3V Electrolytic	c AB	Q704	VS2SA1530ARS1		2SA1530ARS	AC
			<b> </b>		Q705 Q706	VS2SC3052EF-1		2SC3052EF 2SA1530ARS	AC AC
		ISTORS			Q706 Q707	VS2SA1530ARS1 VSKRC103S//-1		KRC103S	AC
R891	VRD-RA2BE272J		1/8W Carbon	AA	Q707 Q708	VSKRC103S//-1		KRC103S	AA
R892	VRD-RA2BE272J		1/8W Carbon	AA	Q710	VS2SC3052EF-1		2SC3052EF	AC
R893 R894	VRD-RA2BE101J VRD-RA2BE221J	V 100	1/8W Carbon 1/8W Carbon	AB AA	Q711	VS2SC3052EF-1	V		AC
1.094	VIND-INMADEZZ IJ	v 22U	1/OVV Calbull	AA					

Ref. No.	Part No.	*	Description	Code	R	ef. No.	Part No.	*	Description	Code
Q712 Q802	VS2SA1530ARS1 VS2SC2712Y/-1	V		AC AB		Q702	RH-PX0233GEZZ	J	PT493FL2	AD
Q853	VSKRA103S//-1	-	KRA103S	AA			PACKAGE	:D (	CIDCUITS	
Q854	VSKRA103S//-1	V		AA	$\wedge$	VA901	RH-VX0048CEZZ		Varistor	AE
⚠ Q901	VS2SK2848//-1	V	2SK2848	AH	<u> </u>	X501	RCRSB0265GEZZ	Ĵ	Crystal	AH
Q940	VS2SA1530ARS1	V		AC		X502	RCRSB0232GEZZ		Crystal	AG
Q941	VSKRC103S//-1		KRC103S	AA		X701	RCRSB0205GEZZ		Crystal	AM
Q942 Q943	VS2SB1117KU1E VSKRC102S//-1	V	2SB1117K KRC102S	AE AA		X702	RCRSB0138GEZZ		,	AD
Q944	VSKRC102S//-1		KRC102S	AA		X770	RCRSB0184GEZZ	J	Crystal	AM
Q945	VS2SA1271-Y-1	V		AB			COILS AND T	RΔI	NSEORMERS	
Q946	VSKRC103S//-1	V		AA		FL801	RFILC0198GEZZ	J		AE
Q947	VS2SC3203Y/-1	V		AB		L101	VP-CF101K0000	V		AB
Q948 Q949	VSKRA103S//-1	V	KRA103S KRC103S	AA AA		L102	VP-XF100K0000	V		AB
Q949 Q950	VSKRC103S//-1 VSKRC103S//-1	V		AA		L103	VP-XF120K0000	V	·	AB
Q951	VS2SA1271-Y-1	v		AB		L104	VP-CF101K0000	V	Peaking 100µH	AB
Q952	VSKRC103S//-1	V		AA		L105 L112	VP-XF100K0000 VP-XF100K0000	V V	Peaking 10μΗ Peaking 10μΗ	AB AB
Q953	VSKRC102S//-1	V		AA		L113	VP-XF2R7K0000	V	<b>.</b>	AB
Q955	VS2SB1117KU1E	V	2SB1117K	AE		L201	VP-XF221J0000	V	Peaking 220μH	AB
Q956 Q963	VSKRC103S//-1 VS2SA1530ARS1	V		AA AC		L301	VP-MK101K0000	V	Peaking 100μH	AB
Q981	VS2SA1330AR31	V		AB		L302	VP-XF180K0000	V	3 - 1	AB
Q982	VSKRC103S//-1	V	KRC103S	AA		L303 L351	VP-MK102K0000 VP-MK101K0000	V V	Peaking 1000μH Peaking 100μH	AB AB
Q983	VS2SA1271-Y-1	V	2SA1271-Y	AB		L502	VP-XF560K0000	V		AB
Q984	VSKRC103S//-1		KRC103S	AA		L503	VP-XF120K0000	V		AB
Q985	VSKRC103S//-1		KRC103S	AA		L602	VP-DF221K0000	V		AB
Q991 Q992	VS2SD471-KL1E VS2SA1530ARS1	V	2SD471-K 2SA1530ARS	AC AC		L603	VP-DF221K0000	V	Peaking 220μH	AB
Q993	VSKRC103S//-1		KRC103S	AA	⚠		RCILF0009AJZZ	V		AK
Q994	VS2SC3052EF-1	V		AC		L922 L923	RCILP0171CEZZ RCILP0175CEZZ	V V	Coil Coil	AD AD
Q995	VSKRC102S//-1	V	KRC102S	AA		T601	RTRNH0087GEZZ	-	OSC. Transformer	AD
	DI	0 D F	-0			T602	RTRNH0088GEZZ		OSC. Transformer	AD
D351	VHD1SS119//-1	ODE V	1SS119	AB	$\triangle$	T901	RTRNZ0124AJZZ	V	Transformer	AQ
D701	RH-PX0270GEZZ	Ĵ		AC			CADA	CIT	TORE	
D702	VHD1SS119//-1	V		AB		C101	CAPA	_	680p 50V Ceramic	AA
D706	RH-PX0252GEZZ	J		AF		C101	VCKYCY1HB562K		5600p 50V Ceramic	AA
D707	RH-PX0252GEZZ	J	GP1S563	AF		C103	VCEA9M0JW107M		•	
D708 D709	RH-PX0253GEZZ RH-PX0253GEZZ	J	GP1S94 GP1S94	AF AF		C105	VCEA0A0JW108M			
D709 D710	VHD1SS119//-1		1SS119	AF AB		C106	VCKYD41CY103N			AA
D712	VHD1SS119//-1		1SS119	AB		C107	VCEA9M0JW227N			
D715	VHD1SS119//-1	V	1SS119	AB		C108 C109	VCCCCY1HH470J VCCCCY1HH470J		47p 50V Ceramic 47p 50V Ceramic	AA AA
D716	VHD1SS119//-1	V		AB		C112	VCKYCY1HF103Z		0.01 50V Ceramic	AA
⚠ D901	RH-DX0220CEZZ	V		AB		C113	VCEA9M1CW106N			c AB
⚠ D902 ⚠ D903	RH-DX0220CEZZ RH-DX0220CEZZ	V	Diode Diode	AB AB		C114	VCKYCY1CF104Z			AA
⚠ D904	RH-DX0220CEZZ	V	Diode	AB		C115	VCEA9M1HW105N			
⚠ D905	VHDERA2206/-1	V		AC		C116 C117	VCEA9M0JW476N VCCCCY1HH470J			c AB AA
⚠ D906	VHD1SS119//-1	V		AB		C118	VCCCCY1HH271J		•	AA
⚠ D907	RH-EX0639GEZZ	J	Zener Diode	AA		C163	VCEA9M1CW106N			
⚠ D908	VHDRB441Q40-1 VHD1SS119//-1	V	RB441Q4 1SS119	AC AB		C201	VCEA9M0JW107M			
⚠ D910	VHDRB441Q40-1	V		AC		C202	VCKYCY0JF105Z			AB
⚠ D911	RH-EX0654GEZZ	J	Zener Diode	AB		C203 C204	VCCCCY1HH151J VCKYCY1CF104Z			AA AA
D921	VHD10ELS4//-1		10ELS4	AD		C204	VCCCCY1HH270J			AA
D922	VHD10ELS4//-1	V		AD		C206	VCKYCY1CF104Z			AA
D923 D924	VHD10ELS4//-1 VHD15DF1FC/1E	V		AD AD		C207	VCKYCY1CF104Z	V	0.1 16V Ceramic	AA
D924 D925	VHDRK34///-1		RK34	AE		C208	VCEA9M1CW106N			
D926	VHD1SS147//-1	V		AA		C209	VCKYCY1CF104Z			AA
D940	VHD1SS119//-1	V		AB		C210 C211	VCKYCY1CF104Z VCEA9M1HW335N			AA c AB
D941	RH-EX0613GEZZ	J	Zener Diode	AA		C212	VCEA9M1CW106N			
D951	RH-EX0677GEZZ	J		AB		C213	VCEA9M1HW225N			
D952 D957	RH-EX0601GEZZ VHD1S40///-1	J V	Zener Diode 1S40	AA AF		C214	VCEA9M1HW105N			
D957 D991	RH-EX0631GEZZ	J	Zener Diode	AF		C215	VCEA9M1HW105N			
D992	VHD1SS119//-1		1SS119	AB		C216 C217	VCEA9M1HW105N			
D993	VHDRL1N4004-1	V		AD		C217	VCEA9M0JW107M VCKYCY0JF105Z			c AB AB
D994	VHDRL1N4004-1	٧		AD		C219	VCKYCY1CF104Z			AA
D996	RH-EX0640GEZZ	J	Zener Diode	AA		C220	VCKYCY1CF104Z		0.1 16V Ceramic	AA
DG801 IC902	VVK25U56102-1 RH-FX0001AJZZ	V	Display TCET1103G	AY AE		C221	VCEA9M1CW106N		•	
Q701	RH-PX0233GEZZ	J		AD		C223	VCKYCY1CF104Z			AA
						C226	VCEA9M0JW107M	ı V	100 6.3V Electrolyti	c AB

Ref. No.	Part No.	*	Des	cription	Code	Ref. No.	Part No.	*	ı	Desci	ription	Code
C227	VCKYCY0JF105Z	V	1 6.3	V Ceramic	AB	 C637	VCKYCY1EB103K	V	0.01	25V	Ceramic	AA
C251	VCEA9M1CW476N	1 V	47 16	/ Electrolyt		C638	VCKYCY1EB103K	V	0.01	25V	Ceramic	AA
C252	VCEA0A0JW337M			V Electrolyt		C639	VCEA9M1CW106			16V	Electrolytic	
C256	VCKYCY1CF104Z		0.1 16		AA	C651	VCEA9M1HW475I			50V	Electrolytic	
C301	VCEA9M0JW107M			V Electrolyt		C652	VCEA9M0JW336N				Electrolytic	
C302	VCKYCY1HP103K	V	1 6.3		AB	C653	VCEA9M1CW106			16V	Electrolytic	
C303 C304	VCKYCY1HB102K VCKYCY1HB102K		1000p 50'		AA AA	C654 C655	VCEA9M1CW106I VCEA9A1CW106N		10	16V 16V	Electrolytic	
C304	VCKYCY1HB102K		1000p 50'		AA	C656	VCKYCY1CB473K				Electrolytic Ceramic	AA
C306	VCKYCY1HB102K		1000p 50'		AA	C657	VCKYCY1EB153K		0.015		Ceramic	AA
C307	VCKYCY1HB102K		1000p 50'		AA	C658	VCKYCY0JF105Z		1		Ceramic	AB
C308	VCKYCY1HB102K		1000p 50'		AA	C659	VCKYCY0JF105Z	V	1		Ceramic	AB
C309	VCKYCY1HB102K		1000p 50'		AA	C661	VCEA9M1HW475I	ΝV	4.7	50V	Electrolytic	AB
C310	VCKYCY1HB102K	V	1000p 50'	/ Ceramic	AA	C662	VCEA9M0JW336N	1 V	33	6.3V	Electrolytic	AB
C311	VCKYCY1HF103Z	V	0.01 50	/ Ceramic	AA	C663	VCEA9M1CW106	ΝV	10	16V	Electrolytic	AB
C312	VCKYCY1HF103Z	V	0.01 50		AA	C664	VCEA9M1CW106		10	16V	Electrolytic	
C315	VCKYCY1HB222K		2200p 50		AA	C665	VCEA9M1CW106		10	16V	Electrolytic	
C316	VCCCCY1HH180J		18p 50'		AA	C666	VCKYCY1CB473K				Ceramic	AA
C317	VCCCCY1HH120J		12p 50'		AA	C667	VCKYCY1EB153K				Ceramic	AA
C318	VCCCCY1HH120J		12p 50'		AA	C668	VCKYCY0JF105Z	V V	1		Ceramic	AB
C319 C320	VCCCCY1HH100D VCCCCY1HH100D		10p 50'		AA AA	C669 C670	VCKYCY0JF105Z VCEA9M0JW107N		1 100		Ceramic Electrolytic	AB AB
C351	VCEA9M0JW107M			V Electrolyt		C670	VCEA9M1CW107I		100	16V	Electrolytic	
C352	VCKYCY0JF105Z	V		V Ceramic	AB	C672	VCKYCY1CF224Z				Ceramic	AA
C353	VCKYCY1HF103Z	V	0.01 50		AA	C673	VCEA9M0JW226N		22		Electrolytic	
C354	VCKYCY1HF103Z		0.01 50		AA	C674	VCKYCY1CF224Z			16V	•	AA
C356	VCCCCY1HH101J	V	100p 50'	/ Ceramic	AA	C675	VCKYCY1CF224Z	V	0.22	16V	Ceramic	AA
C357	VCKYCY1CB104K	V	0.1 16	/ Ceramic	AB	C676	VCEA9M0JW226N	1 V	22	6.3V	Electrolytic	AB
C358	VCKYCY1CB104K	V	0.1 16	/ Ceramic	AB	C677	VCEA9M1CW106	ΝV		16V	Electrolytic	
C501	VCEA9M0JW107M			V Electrolyt		C678	VCKYCY1HF103Z			50V	Ceramic	AA
C502	VCKYCY0JF105Z	V		V Ceramic	AB	C679	VCKYCY1CF224Z		0.22	16V		AA
C503	VCKYCY1HB472K				AA	C680	VCKYCY0JF105Z		1		Ceramic	AB
C504	VCEA9M1HW225N		2.2 50	,		C681	VCKYCY1HF103Z			50V	Ceramic	AA
C505 C506	VCKYCY1EB223K VCEA9M1HW474N		0.022 25		AA tic AB	C682 C684	VCKYCY0JF105Z VCCCCY1HH560J	V I V		50V	Ceramic Ceramic	AB AA
C507	VCKYCY1CF104Z				AA	C685	VCCCCY1HH560J			50V		AA
C508	VCEA9M1HW475N		4.7 50			C701	VCKYD41CY103N		0.01	16V	Ceramic	AA
C509	VCKYCY1HF103Z		0.01 50	,	AA	C702	VCKYD41CY103N			16V	Ceramic	AA
C512	VCKYD41CY103N	V	0.01 16		AA	C703	VCEA9M1HW105I		1	50V	Electrolytic	
C513	VCKYCY1HF103Z	V	0.01 50	/ Ceramic	AA	C704	VCKYCY0JF105Z	V	1	6.3V	Ceramić	AB
C514	VCKYCY1HF103Z	V	0.01 50	/ Ceramic	AA	C705	VCKYCY1HF103Z	V	0.01	50V	Ceramic	AA
C515	VCKYD41HB331K		330p 50'		AA	C706	VCKYCY1HF103Z			50V	Ceramic	AA
C516	VCCCCY1HH120J		12p 50		. AA	C707	VCCCCY1HH150J		15p	50V	Ceramic	AA
C517	VCEA9M1HW335N		3.3 50	,		C708	VCCCCY1HH150J		15p	50V	Ceramic	AA
C518	VCKYCY1HF333Z		0.033 50		AA	C709	VCCCCY1HH180J		18p	50V	Ceramic	AA
C519	VCEA9M1HW105N			, , , , ,		C710	VCCCCY1HH180J			50V	Ceramic	AA
C521 C523	VCCCCY1HH5R0C			/ Ceramic	AA AA	C711 C712	VCKYD41HB102K VCKYD41HB102K					AA AA
C524	VCKYCY1HF103Z				AA	C712	VCKYD41HB102K					AA
C530	VCKYCY1CB104K			/ Ceramic	AB	C714	VCKYCY1CF104Z				Ceramic	AA
C601	VCEA9M0JW107M			V Electrolyt		C715	VCEA9M0JW226N				Electrolytic	
C602	VCKYCY1EB103K			,	AA	C716	VCCCCY1HH221J				•	AA
C603	VCEA9A1CW106N	ΙV	10 16	/ Electrolyt	tic AB	C717	VCKYD41HB221K	V	220p	50V	Ceramic	AA
C604	VCKYCY1HB821K	V	820p 50'	/ Ceramic	AA	C718	VCKYCY1CF104Z	V	0.1	16V	Ceramic	AA
C605	VCEA9M1CW106N			/ Electrolyt		C719	VCKYCY1EB103K	V	0.01		Ceramic	AA
C606	VCEA9M1HW475N					C722	VCKYD41CY103N				Ceramic	AA
C607	VCEA9M1HW475N			,		C724	VCKYD41CY103N				Ceramic	AA
C608	VCEA9M0JW226M			V Electrolyt		C725	VCKYD41CY103N				Ceramic	AA
C609 C610	VCEA9M1HW475N			,		C726	VCKYD41CY103N				Ceramic	AA
C610	VCKYD41HF104Z VCKYD41HF104Z			/ Ceramic / Ceramic	AA	C727 C729	VCKYD41CY103N				Ceramic	AA
C617	VCEA9M1CW476N				AA tic AB	C729 C730	VCKYD41CY103N VCKYD41CY103N				Ceramic Ceramic	AA AA
C618	VCKYCY1EB103K			/ Ceramic	AA	C734	VCKYCY1CB393K					AA
C619	VCKYCY1EB103K			/ Ceramic	AA	C734	VCKYD41CY103N				Ceramic	AA
C620	VCEA9M1CW106N			/ Electrolyt		C737	VCKYD41CY103N				Ceramic	AA
C621	VCQPYA2AA562J				AC	C738	VCKYCY1HB102K					AA
C622	VCKYCY1HB222K				AA	C739	VCKYCY1HB102K					AA
C629	VCKYCY0JF105Z	V	1 6.3	V Ceramic	AB	C741	VCKYCY1CB393K					AA
C630	VCKYCY0JF105Z			V Ceramic	AB	C743	VCKYCY1CF104Z	V	0.1	16V	Ceramic	AA
C631	VCCCCY1HH101J				AA	C744	VCEA2A0JW108N				Electrolytic	
C632	VCCCCY1HH101J				AA	C745	RC-EZ0111GEZZ	J				AH
C633	VCCCCY1HH221J			/ Ceramic	AA	C746	VCKYD41CY103N				Ceramic	AA
C634	VCKYD41HB221K				AA	C747	VCKYD41CY103N			16V		AA
C635 C636	VCQPYA2AA333J VCEA9M1CW476N			•	AC tic AB	C748 C749	VCKYD41CY103N VCKYD41CY103N				Ceramic Ceramic	AA AA
	V OLABIVI I OVV4/OIV	ı V	+1 10	LICUIUIYI	iic Ab	 0143	VOICED4101103IV	٧	0.01	100	Ociailii	

Ref. No.	Part No.	*	Descr	ription	Code		Ref. No.	Part No.	*		Descr	iption	Code
C750	VCKYD41CY103N	V		Ceramic	AA		C992	VCEA9M1CW226	M V	22	16V	Electrolytic	
C751	VCKYD41CY103N		0.01 16V	Ceramic	AA		C993	VCEA9M1CW476	M V	47	16V	Electrolytic	c AB
C752 C754	VCEA2A1VW337N VCKYCY1EB103K			Electrolytic Ceramic	AD AA			RES	IST	ORS			
C755	VCKYCY1CB473K			Ceramic	AA		R101	VRS-CY1JF470J		47	1/16W	Metal Oxio	de AA
C756	VCKYCY1CB473K	V	0.047 16V	Ceramic	AA		R103	VRS-CY1JF473J	V	47k		Metal Oxid	
C759	VCEA9M0JW226N			Electrolytic			R104	VRS-CY1JF000J	V	00		Metal Oxio	
C760 C761	VCEA9M0JW107N VCKYCY1HB102K			Electrolytic Ceramic	: AB AA		R105 R107	VRS-CY1JF000J VRS-CY1JF822J	V	8 2k		Metal Oxid	
C763	VCEA9M0JW476N			Electrolytic			R107	VRS-CY1JF000J	V	00		Metal Oxid	
C764	VCKYCY1EB103K			Ceramic	AA		R110	VRS-CY1JF153J	V			Metal Oxid	
C765	VCKYCY1EB103K			Ceramic	AA		R111	VRS-CY1JF153J	V	15k		Metal Oxio	
C770 C771	VCCCCY1HH101J			Ceramic	AA AB		R112	VRS-CY1JF224J	V			Metal Oxid	
C771	VCE9EM1HW105N VCCCCY1HH120J			Elect.(N.P) Ceramic	AA AA		R113 R201	VRS-CY1JF561J VRS-CY1JF682J	V			Metal Oxid	
C773	VCCCCY1HH120J		12p 50V	Ceramic	AA		R202	VRS-CY1JF182J	V			Metal Oxid	
C774	VCKYD41HF104Z			Ceramic	AA		R203	VRS-CY1JF332J	V			Metal Oxid	
C775	VCEA9M0JW107N			Electrolytic			R207	VRS-CY1JF101J	V	100		Metal Oxid	
C776 C783	VCKYCY0JF105Z VCKYCY0JF105Z	V V		Ceramic Ceramic	AB AB		R225 R226	VRS-CY1JF750J VRD-RA2BE101J	V	75 100		Metal Oxid	de AA AB
C784	VCKYCY1HB102K		1000p 50V	Ceramic	AA		R227	VRS-CY1JF750J	V	75		Metal Oxid	
C785	VCEA9M0JW476N			Electrolytic			R229	VRS-CY1JF101J	V	100		Metal Oxid	
C786	VCKYCY1CF334Z			Ceramic	AA		R232	VRS-CY1JF153J	V	15k		Metal Oxio	
C787	VCFYHA1HA474J			M.Polypro	AD		R233	VRS-CY1JF153J VRS-CY1JF000J	V	15k		Metal Oxid	
C789 C790	VCKYCY1EB103K VCQYTA1HM392J		0.01 25V 3900p 50V	Ceramic Mylar	AA AA		R242 R249	VRS-CY1JF000J	V	00 00		Metal Oxid	
C791	VCQYTA1HM392J		3900p 50V	Mylar	AA		R252	VRD-RA2EE331J	V	330		Carbon	AA
C792	VCEA9M1CW476N	M V	47 16V	Electrolytic			R253	VRS-CY1JF101J	V	100	1/16W	Metal Oxid	de AA
C794	VCKYCY1EB223K			Ceramic	AA		R254	VRS-CY1JF331J	V	330		Metal Oxio	
C795 C796	VCKYCY1EB223K VCEA9M1CW476N			Ceramic Electrolytic	AA : AB		R256 R301	VRS-CY1JF472J VRS-CY1JF473J	V	4.7k 47k		Metal Oxid	
C797	VCKYCY1CF104Z			Ceramic	AA		R303	VRS-CY1JF392J	V			Metal Oxid	
C798	VCKYCY1EB223K			Ceramic	AA		R305	VRS-CY1JF102J	V	1k		Metal Oxid	
C799	VCKYD41HF104Z				AA		R306	VRD-RA2BE561J	V			Carbon	AA
C801 C802	VCKYD41CY103N VCEA9M0JW476N			Ceramic Electrolytic	AA : AB		R309 R330	VRS-CY1JF222J VRS-CY1JF222J	V			Metal Oxid	
C802	VCKYCY1HF103Z		0.01 50V	Ceramic	AA		R331	VRD-RA2BE102J	V	2.2N 1k		Carbon	AA
C805	VCKYPA1HF103Z			Ceramic	AA		R351	VRD-RA2BE473J	V	47k		Carbon	AA
C806	VCKYPA1HF103Z			Ceramic	AA		R501	VRS-CY1JF102J	V	1k		Metal Oxio	
	RC-FZ029CUMZZ RC-KZ0105GEZZ	V J	Capacitor Capacitor		AD AD		R502 R504	VRS-CY1JF273J VRS-CY1JF221J	V	27k 220		Metal Oxid	
<u> </u>	RC-EZ0440GEZZ	J			AH		R505	VRS-CY1JF000J	V	00		Metal Oxid	
⚠ C905	RC-KZ0112CEZZ	V	Capacitor		AB		R507	VRS-CY1JF000J	V	00		Metal Oxid	
<u> </u>	VCFYAG2GA473K			, ,	AD		R511	VRS-CY1JF272J	V			Metal Oxio	
	VCEA9M1HW226N VCKYCY1HB222K		22 50V	Electrolytic	: AB AA		R512 R513	VRS-CY1JF272J VRS-CY1JF224J	V			Metal Oxid	
<u> </u>	VCKYCY1HB222K		2200p 50V 2200p 50V	Ceramic	AA		R520	VRS-CY1JF154J	V			Metal Oxid	
⚠ C912	VCEA9M1HW106M			Electrolytic			R521	VRS-CY1JF473J	V			Metal Oxid	
	VCKYCY1HF333Z			Ceramic	AA		R601	VRS-CY1JF822J	V			Metal Oxid	
C917	VCKYD41HF104Z		0.1 50V	Ceramic	AA		R602	VRS-CY1JF274J	V			Metal Oxid	
C921 C923	VCEA0A1AW477N VCEA0A1JW476N			Electrolytic Electrolytic			R603 R604	VRS-CY1JF221J VRS-CY1JF473J	V			Metal Oxid	
C925	VCEA0A1VW477N			Electrolytic			R605	VRS-CY1JF153J	V			Metal Oxid	
C927	RC-EZ0439GEZZ	J	Capacitor	,	AF		R606	VRS-CY1JF273J	V	27k	1/16W	Metal Oxid	de AA
C928	VCEA0A1EW107N			Electrolytic			R607	VRS-CY1JF561J	V			Metal Oxid	
C929 C930	RC-EZ0438GEZZ VCEA0A0JW108W	J 1 V		Electrolytic	AF : AC		R608 R609	VRS-CY1JF472J VRS-CY1JF000J	V	4.7k 00		Metal Oxid	
C931	VCEA0A03W106W			Electrolytic			R611	VRS-CY1JF153J	V	15k		Metal Oxid	
C932	VCKYCY1HF103Z			Ceramic	AA		R612	VRS-CY1JF823J	V	82k		Metal Oxid	
C933	VCEA9M1HW105M			•			R615	VRS-CY1JF000J	V	00		Metal Oxio	
C935 C941	VCEA9M0JW227N			Electrolytic			R616	VRS-CY1JF103J	V	10k 56k		Metal Oxid	
C941	VCEA9A1CW476N VCEA9M0JW476N			Electrolytic Electrolytic			R618 R619	VRS-CY1JF563J VRD-RA2BE470J		47		Carbon	de AA AA
C943	VCEA9M0JW226N			Electrolytic			R620	VRD-RA2BE153J	V	15k		Carbon	AA
C944	VCEA9M1CW226M			Electrolytic			R621	VRD-RA2EE4R7J		4.7		Carbon	AA
C953	VCEA9M0JW226N			Electrolytic			R622	VRD-RA2EE4R7J		4.7		Carbon	AA
C954 C956	VCEA9M1HW105N VCEA9M0JW226N			Electrolytic Electrolytic			R623 R624	VRD-RA2BE223J VRD-RA2BE224J	V			Carbon Carbon	AA AA
C971	VCEA9M0JW226N			Electrolytic			R627	VRS-CY1JF332J	V			Metal Oxid	
C981	VCEA9M0JW476N	ΛV	47 6.3V	Electrolytic	: AB		R630	VRS-CY1JF104J	V	100k	1/16W	Metal Oxid	de AA
C982	VCEA9M0JW226N			Electrolytic			R631	VRS-CY1JF124J	V			Metal Oxid	
C983 C984	VCEA9M0JW476N VCEA9M0JW476N			Electrolytic Electrolytic			R632 R633	VRS-CY1JF562J VRS-CY1JF104J	V			Metal Oxid	
C985	VCEA9M0JW476N			Electrolytic			R634	VRS-CY1JF104J	V			Metal Oxid	
C991	VCEA9M1CW476N			Electrolytic			R635	VRS-CY1JF473J				Metal Oxid	
						_							

Ref. No.	Part No.	*		Description	Code	Ref. No.	Part No.	*		Description	Code
R636	VRS-CY1JF101J	V	100	1/16W Metal Oxi	de A	R739	VRD-RA2BE271J	V	270	1/8W Carbon	AA
R637	VRS-CY1JF000J	V	00	1/16W Metal Oxi			VRD-RA2BE104J	V	100k	1/8W Carbon	AA
R638	VRS-CY1JF472J	V	4.7k	1/16W Metal Oxi	de A	R741	VRD-RA2BE271J	V	270	1/8W Carbon	AA
R639	VRS-CY1JF223J	V	22k	1/16W Metal Oxi			VRS-CY1JF473J	V		1/16W Metal Oxide	
R640	VRS-CY1JF680J	V	68	1/16W Metal Oxi			VRD-RA2BE391J	V		1/8W Carbon	AA
R641	VRD-RA2BE332J	V		1/8W Carbon	A/		VRS-CY1JF473J	V		1/16W Metal Oxide	
R651	VRS-CY1JF183J	V	18k	1/16W Metal Oxi			VRD-RA2BE391J	V	390	1/8W Carbon	AA
R652 R653	VRS-CY1JF102J VRD-RA2BE473J	V	1k 47k	1/16W Metal Oxi 1/8W Carbon	ide AA		VRS-CY1JF103J VRS-CY1JF1R0J	V V	10k 1	1/16W Metal Oxide 1/16W Metal Oxide	
R654	VRS-CY1JF682J	V		1/16W Metal Oxi			VRD-RM2HD271J	V		1/2W Carbon	AA
R655	VRS-CY1JF473J	V		1/16W Metal Oxi			VRD-RA2BE123J	V		1/8W Carbon	AA
R656	VRS-CY1JF682J	V		1/16W Metal Oxi			VRD-RA2BE123J	V	12k	1/8W Carbon	AA
R657	VRS-CY1JF472J	V	4.7k	1/16W Metal Oxi	de A		VRD-RA2BE102J	V	1k	1/8W Carbon	AA
R658	VRS-CY1JF223J	V	22k	1/16W Metal Oxi	de A	R754	VRD-RA2BE102J	V	1k	1/8W Carbon	AA
R661	VRS-CY1JF183J	V	18k	1/16W Metal Oxi			VRS-CY1JF103J	V		1/16W Metal Oxide	
R662	VRS-CY1JF102J	V	1k	1/16W Metal Oxi			VRS-CY1JF102J	V		1/16W Metal Oxide	
R663	VRD-RA2BE473J		47k	1/8W Carbon	AA		VRS-CY1JF103J			1/16W Metal Oxide	
R664	VRS-CY1JF682J VRD-RA2BE473J	V		1/16W Metal Oxi			VRS-CY1JF104J VRS-CY1JF104J	V		1/16W Metal Oxide	
R665 R666	VRD-RAZBE473J VRS-CY1JF682J	V		1/8W Carbon 1/16W Metal Oxi	AA Abi		VRS-CY1JF104J VRS-CY1JF123J	V	100k	1/16W Metal Oxide 1/16W Metal Oxide	
R667	VRS-CY1JF472J	V		1/16W Metal Oxi			VRS-CY1JF563J	V		1/16W Metal Oxide	
R668	VRS-CY1JF223J	v	22k	1/16W Metal Oxi			VRS-CY1JF183J	V	18k	1/16W Metal Oxide	
R670	VRS-CY1JF333J	V	33k	1/16W Metal Oxi			VRS-CY1JF223J	V		1/16W Metal Oxide	
R671	VRS-CY1JF473J	V	47k	1/16W Metal Oxi			VRS-CY1JF472J	V	4.7k	1/16W Metal Oxide	
R672	VRS-CY1JF000J	V	00	1/16W Metal Oxi	de A	R767	VRD-RA2BE102J	V	1k	1/8W Carbon	AA
R673	VRS-CY1JF000J	V	00	1/16W Metal Oxi	de A	R768	VRS-CY1JF102J	V	1k	1/16W Metal Oxide	e AA
R674	VRS-CY1JF473J	V	47k	1/16W Metal Oxi			VRS-CY1JF332J	V		1/16W Metal Oxide	
R675	VRS-CY1JF183J	V	18k	1/16W Metal Oxi			VRD-RA2BE104J	V		1/8W Carbon	AA
R676	VRD-RA2BE102J	V	1k	1/8W Carbon	AA		VRS-CY1JF103J	V		1/16W Metal Oxide	
R677	VRS-CY1JF473J	V		1/16W Metal Oxi 1/8W Carbon	ide AA		VRS-CY1JF222J	V	2.2K 1k	1/16W Metal Oxide 1/16W Metal Oxide	
R678 R679	VRD-RA2BE102J VRD-RA2BE102J	V	1k	1/8W Carbon	A/		VRS-CY1JF102J VRS-CY1JF102J	V	1k	1/16W Metal Oxide	
R680	VRS-CY1JF472J	V		1/16W Metal Oxi			VRS-CY1JF102J	V		1/16W Metal Oxide	
R682	VRS-CY1JF472J	V		1/16W Metal Oxi			VRS-CY1JF102J	V	1k	1/16W Metal Oxide	
R687	VRS-CY1JF471J	V	470	1/16W Metal Oxi	de A		VRS-CY1JF102J	V		1/16W Metal Oxide	
R688	VRS-CY1JF471J	V	470	1/16W Metal Oxi	de A	R779	VRD-RA2BE103J	V	10k	1/8W Carbon	AA
R690	VRS-CY1JF101J	V	100	1/16W Metal Oxi			VRD-RA2BE103J	V	10k	1/8W Carbon	AA
R691	VRD-RA2BE151J	V		1/8W Carbon	AA		VRD-RA2BE103J	V	10k	1/8W Carbon	AA
R692	VRD-RA2BE151J	V	150	1/8W Carbon	AA		VRS-CY1JF104J	V		1/16W Metal Oxide	
R693 R694	VRS-CY1JF102J	V	1k 1k	1/16W Metal Oxi			VRS-CY1JF392J VRS-CY1JF104J	V		1/16W Metal Oxide 1/16W Metal Oxide	
R695	VRS-CY1JF102J VRS-CY1JF102J	V		1/16W Metal Oxi 1/16W Metal Oxi			VRS-CY1JF104J	V	1M	1/16W Metal Oxide	
R702	VRS-CY1JF102J	V	1k	1/16W Metal Oxi			VRS-CY1JF564J	V		1/16W Metal Oxide	
R703	VRS-CY1JF102J	V		1/16W Metal Oxi			VRD-RM2HD1R0J			1/2W Carbon	AA
R704	VRS-CY1JF102J	V	1k	1/16W Metal Oxi			VRD-RM2HD1R0J	V	1	1/2W Carbon	AA
R705	VRS-CY1JF102J	V		1/16W Metal Oxi			VRD-RA2BE102J	V	1k	1/8W Carbon	AA
R706	VRS-CY1JF153J						VRS-CY1JF1R0J		1	1/16W Metal Oxide	
R707	VRS-CY1JF153J			1/16W Metal Oxi			VRS-CY1JF332J			1/16W Metal Oxide	
R708	VRD-RA2BE102J		1k	1/8W Carbon	AA		VRD-RA2BE125J			1/8W Carbon	AA
R709 R710	VRD-RA2BE102J VRS-CY1JF473J		1k 47k	1/8W Carbon 1/16W Metal Oxi	AA de AA		VRS-CY1JF103J VRD-RA2BE102J		10K	1/16W Metal Oxide 1/8W Carbon	AA e
R710	VRS-CY1JF473J			1/16W Metal Oxi			VRS-CY1JF102J		1k	1/16W Metal Oxide	
R712	VRS-CY1JF223J	v		1/16W Metal Oxi			VRD-RA2BE473J			1/8W Carbon	AA
R713	VRS-CY1JF564J	V		1/16W Metal Oxi			VRD-RA2BE183J			1/8W Carbon	AA
R714	VRD-RA2BE332J	V	3.3k	1/8W Carbon	AA	R814	VRD-RA2BE562J	V	5.6k	1/8W Carbon	AA
R715	VRD-RA2BE102J	V	1k	1/8W Carbon	AA	R816	VRS-CY1JF563J	V	56k	1/16W Metal Oxide	e AA
R716	VRD-RA2BE102J		1k	1/8W Carbon	AA		VRS-CY1JF183J			1/16W Metal Oxide	
R717	VRS-CY1JF331J	V		1/16W Metal Oxi			VRS-CY1JF562J			1/16W Metal Oxide	
R718	VRS-CY1JF182J	V		1/16W Metal Oxi			VRS-CY1JF472J			1/16W Metal Oxide	
R719 R721	VRS-CY1JF102J VRD-RA2BE274J	V	1k	1/16W Metal Oxi 1/8W Carbon	ide AA AA		VRS-CY1JF103J VRS-CY1JF223J			1/16W Metal Oxide 1/16W Metal Oxide	
R721	VRS-CY1JF102J		1k	1/16W Metal Oxi			VRD-RA2BE563J			1/8W Carbon	AA
R723	VRS-CY1JF331J	v		1/16W Metal Oxi			VRS-CY1JF822J			1/16W Metal Oxide	
R725	VRS-CY1JF104J	V		1/16W Metal Oxi			VRD-RA2BE103J			1/8W Carbon	AA
R727	VRD-RA2EE151J	V		1/4W Carbon	AA		VRD-RA2BE103J			1/8W Carbon	AA
R728	VRS-CY1JF182J	V	1.8k	1/16W Metal Oxi		R842	VRS-CY1JF103J			1/16W Metal Oxide	
R729	VRS-CY1JF154J			1/16W Metal Oxi			VRD-RA2BE474J			1/8W Carbon	AA
R731	VRD-RA2BE103J	V		1/8W Carbon	A/		VRD-RA2BE104J			1/8W Carbon	AA
R732	VRS-CY1JF153J	V		1/16W Metal Oxi			VRD-RA2BE102J		1k	1/8W Carbon	AA
R733	VRS-CY1JF104J VRS-CY1JF223J	V		: 1/16W Metal Oxi 1/16W Metal Oxi			VRD-RA2BE102J		1k	1/8W Carbon	AA ^^
D701		١/		TOVVIVIETAL OXI	ue A/	R855	VRD-RA2BE102J	V	1k	1/8W Carbon	AA
R734						Dare	VRD-RASRE103 I	\/	1レ	1/8\W Carbon	ΔΔ
R735	VRS-CY1JF393J	V	39k	1/16W Metal Oxi	de A		VRD-RA2BE102J VRD-RA2BE102J		1k 1k	1/8W Carbon	AA AA
		V	39k		de AA	R857	VRD-RA2BE102J VRD-RA2BE102J VRD-RA2BE102J	V	1k 1k 1k	1/8W Carbon 1/8W Carbon 1/8W Carbon	AA AA AA

Ref. No.	Part No.	*	Description	Code	Ref. No.	Part No.	*	Description (	Code
R863	VRS-CY1JF102J		1k 1/16W Metal O		R7701	VRS-CY1JF223J	٧	22k 1/16W Metal Oxide	
R864 R865	VRS-CY1JF102J VRS-CY1JF471J		1k 1/16W Metal O: 470 1/16W Metal O:		R7704 R7705	VRS-CY1JF473J VRS-CY1JF154J	V	47k 1/16W Metal Oxide 150k 1/16W Metal Oxide	
R866	VRS-CY1JF102J		1k 1/16W Metal O		R7706	VRS-CY1JF154J VRS-CY1JF822J	V	8.2k 1/16W Metal Oxide	
R871	VRS-CY1JF333J		33k 1/16W Metal O		R7707	VRS-CY1JF154J	V	150k 1/16W Metal Oxide	
R872	VRS-CY1JF333J	V	33k 1/16W Metal O	xide AA					
R873	VRS-CY1JF333J		33k 1/16W Metal O			MISCELLA			
R874	VRS-CY1JF333J		33k 1/16W Metal O:		<u>^</u>	QACCL3004AJZZ		AC Cord	AT
R875 R876	VRD-RA2BE103J VRD-RA2BE103J		10k 1/8W Carbon 10k 1/8W Carbon	AA AA	<u>↑</u> F901	QFS-C2025CEZZ RBLN-0036CEZZ	V	Fuse, T2AL/250V	AD
R877	VRS-CY1JF103J		10k 1/16W Metal O:		FB201 FB202	RBLN-0036CEZZ	V	Ferrite Bead Ferrite Bead	AB AB
R878	VRS-CY1JF103J		10k 1/16W Metal O		FB203	RBLN-0036CEZZ	V	Ferrite Bead	AB
R880	VRD-RA2BE333J		33k 1/8W Carbon	AA	FB701	RBLN-0036CEZZ	V	Ferrite Bead	AB
<u> </u>	VRD-RM2HD105J		1M 1/2W Carbon	AA	FB702	RBLN-0036CEZZ	V	Ferrite Bead	AB
<u>∧</u> R902	RR-HZ0014GEZZ		Resistor	AE	<u>↑</u> FB903	RBLN-0036CEZZ	V	Ferrite Bead	AB
⚠ R903	RR-WZ0018GEZZ RR-SZ0019GEZZ		Resistor Resistor	AD AD	FB904 ∱ FB905	RBLN-0036CEZZ RBLN-0036CEZZ	V V	Ferrite Bead Ferrite Bead	AB AB
<u> </u>	VRD-RM2HD154J		150k 1/2W Carbon	AA	<u>/</u> 1 FB905 FB906	RBLN-0036CEZZ	V	Ferrite Bead	AB
⚠ R906	VRD-RM2HD154J		150k 1/2W Carbon	AA	<u> </u>	QFSHD1013CEZZ		Fuse Holder	AC
<u> </u>	VRD-RA2EE4R7J	V	4.7 1/4W Carbon	AA	⚠ FH902	QFSHD1014CEZZ		Fuse Holder	AC
<u> </u>	VRS-CY1JF473J		47k 1/16W Metal O		J201	QJAKL0006AJZZ	V	Jack	AL
<u> </u>	VRN-VV3DBR22J		0.22 2W Metal Fi 470 1/4W Carbon		P701	QPLGZ0883GEZZ		Plug, 8pin(AC)	AD
<u> </u>	VRD-RA2EE471J VRD-RA2BE470J		470 1/4W Carbon 47 1/8W Carbon	AA AA	⚠ P901 S701	QPLGN0269GEZZ		Plug, 2pin(AP)	AB AG
∴ R912 ∴ R913	VRS-CY1JF183J		18k 1/16W Metal O		\$701 \$702	QSW-F0042AJZZ QSW-F0043GEZZ	J	Rec Tip Switch Switch	AD
⚠ R914	VRD-RA2BE471J		470 1/8W Carbon	AA	S808	QSW-K0002AJZZ	V	Switch, SET	AD
	VRS-CY1JF470J	V	47 1/16W Metal O:	xide AA	S809	QSW-K0002AJZZ	V	Switch, MENU	AD
<u> </u>	VRS-CY1JF153J		15k 1/16W Metal O		SC101	QSOCN0263FJ00	V	Socket, 14pin(AI)	ΑE
R921	VRG-SC2EB1R0J		1 1/4W Fuse Re		SC102	QSOCN0258FJ00	V	Socket, 9pin(AN)	AF
R922	VRD-RM2HD100J		10 1/2W Carbon	AA	SC301	QSOCN0911REN		Socket, 9pin(AH)	AD
R923 R924	VRD-RA2BE104J VRS-CY1JF273J		100k 1/8W Carbon 27k 1/16W Metal O	AA xide AA	SC601	QSOCN0604REN		Socket, 6pin(AA)	AB
R925	VRS-CY1JF100J		10 1/16W Metal O		SC602 SC651	QSOCZ0293GEZZ QSOCN0264FJ00		Socket, 2pin(AE) Socket, 15pin(AS)	AC AH
R926	VRD-RA2BE331J		330 1/8W Carbon	AA	SC701	QSOCN0704REN		Socket, 7pin(AD)	AB
R927	VRS-CY1JF102J	V	1k 1/16W Metal O	xide AA	SC702	QSOCZ0292GEZZ		Socket, 2pin(AL)	AC
R929	VRD-RA2BE471J		470 1/8W Carbon	AA	SC703	QSOCZ1425CEZZ	. V	Socket, 14pin(AF)	AD
R930	VRS-CY1JF122J		1.2k 1/16W Metal O		SC801	QSOCZ0625CEZZ		, I ( ,	AC
R931 R932	VRS-CY1JF152J VRD-RA2BE332J		1.5k 1/16W Metal O: 3.3k 1/8W Carbon		SC803	QSOCN0506REN		Socket, 5pin(AQ)	AC
R940	VRD-RAZBE332J VRD-RM2HD471J		470 1/2W Carbon	AA AA	TP101 TP201	QPLGN0447REZZ QPLGN0447REZZ		Plug, 4pin(Test Point) Plug, 4pin(Test Point)	AA AA
R941	VRD-RA2BE333J		33k 1/8W Carbon	AA	17201	QFLGN0447 NLZZ	. V	riug, 4piii(Test roiiit)	AA
R942	VRS-CY1JF103J	V	10k 1/16W Metal O:	xide AA					
R943	VRD-RM2HD561J		560 1/2W Carbon	AA	N	MECHANISM (	CH	ASSIS PARTS	
R944	VRS-CY1JF102J		1k 1/16W Metal O						
R945 R946	VRS-CY1JF473J VRS-CY1JF103J		47k 1/16W Metal O: 10k 1/16W Metal O:			1 DND1/4044 A 177	` '	Tanalan Danid Asala	
R940 R947	VRS-CY1JF821J	-	820 1/16W Metal O		1	LBNDK1011AJZZ LBOSZ1007AJZZ		Tension Band Ass'y Tension Arm boss	AH
R948	VRD-RA2BE332J		3.3k 1/8W Carbon	AA	2 3	LBOSZ1007AJZZ LBOSZ1006AJZZ	V	Cassette Stay L	AD AD
R949	VRD-RA2BE682J		6.8k 1/8W Carbon	AA	5	LCHSM0174AJZZ	V	Main Chassis Ass'y	AV
R950	VRD-RA2BE223J	V	22k 1/8W Carbon	AA	6	LHLDZ2016AJZZ	V	Loading Motor Block	AG
R951	VRS-CY1JF223J		22k 1/16W Metal O		7	LPOLM0070GEZZ		Supply Pole Base Ass'y	AK
R952	VRS-CY1JF223J		22k 1/16W Metal O:		8	LPOLM0064GEZZ		Take-Up Pole Base Ass'	-
R954 R955	VRD-RA2BE561J VRD-RA2BE103J		560 1/8W Carbon 10k 1/8W Carbon	AA AA	9	MLEVF0518AJZZ	V	Take-Up Loading	AF
R956	VRD-RA2BE471J		470 1/8W Carbon	AA	10	MLEVF0519AJZZ	V	Arm Ass'y Supply Loading	AF
R957	VRD-RA2BE152J		1.5k 1/8W Carbon	AA	10	WILLVIOSTBAJZZ	V	Arm Ass'y	AI
R958	VRD-RM2HD182J		1.8k 1/2W Carbon	AA	11	MLEVF0499AJZZ	V	Pinch Drive Lever Ass'y	AG
R959	VRD-RA2BE103J		10k 1/8W Carbon	AA	12	MLEVF0500GEZZ	J	Pinch Roller Lever Ass'y	AW
R960	VRN-VV3DB3R3J		3.3 2W Metal Fi		15	MLEVF0523AJZZ	V	Tension Arm Ass'y	AH
R963	VRS-CY1JF102J		1k 1/16W Metal O:		16	LANGF9620AJFW			AG
R964 R965	VRS-CY1JF102J		1k 1/16W Metal O: 22k 1/8W Carbon	xide AA AA	17	MLEVP0271AJZZ	V	Sifter Drive Lever	AE
R973	VRD-RA2BE223J VRS-CY1JF103J		22k 1/6W Carbon 10k 1/16W Metal O:		18 19	MLEVP0272AJZZ MLEVP0301AJZZ	V	Pinch Double Action Lev Reverse Guide Lever As	
R974	VRS-CY1JF152J		1.5k 1/16W Metal O		20	MLEVP0301AJZZ MLEVP0275AJZZ	V		S YAL AD
R981	VRS-CY1JF103J		10k 1/16W Metal O		21	MLEVP0292AJZZ	V	Slow Brake Lever	AE
R982	VRS-CY1JF561J		560 1/16W Metal O		22	MLEVP0290AJZZ	V	Open Lever	AD
R984	VRS-CY1JF471J		470 1/16W Metal O		23	MLEVP0293AJZZ	V		AE
R986	VRS-CY1JF103J		10k 1/16W Metal O:		24	MLEVP0324AJZZ	V	117	
D007	VRS-CY1JF561J VRD-RA2BE103J		560 1/16W Metal O: 10k 1/8W Carbon	xide AA AA	25	MLEVP0325AJZZ	V		AF
R987		V		AA	00	CLEVP0287GEZZ		Ass'y	
R988		V	470 1/8W Carbon						
R988 R989	VRD-RA2BE471J		470 1/8W Carbon 330 1/8W Carbon	AA	26 27			Auto Head Cleaner Ass'y Sifter	•
R988		V	470 1/8W Carbon 330 1/8W Carbon 2.2k 1/16W Metal O	AA	26 27 29	MSLiP0010AJZZ MSPRD0175AJFJ	V V	Sifter Reverse Guide Spring 2	AH
R988 R989 R991	VRD-RA2BE471J VRD-RA2BE331J	V V V	330 1/8W Carbon	AA xide AA	27	MSLiP0010AJZZ	V	Sifter Reverse Guide Spring 2	AH

Ref. No.	Part No.	*	Description	Code
31	MSPRT0403AJFJ	V	Pinch Double Action Spring	AD
32	MSPRC0213AJFJ	V	Earth Spring	AC
33	MSPRT0416AJFJ	V	Tension Spring	AD
34	NBLTK0067AJ00	V	Reel Belt	ΑE
35	NDAiV1078AJ00	V	Reel Disk	ΑE
36	NGERH1293AJZZ	V	Loading Connect Gear	AD
37	NGERH1295AJ00	V	Master Cam	ΑE
38	NGERH1294AJZZ	V	Casecon Drive Gear	AD
39	NGERH1270AJZZ	V	Take-Up Loading Gear	AF
40	NGERH1271AJZZ	V	Supply Loading Gear	AD
41	NGERH1272AJZZ	V	Pinch Drive Cam	ΑE
43	NGERH1299AJZZ	V	Reel Relay Gear	ΑE
44	NGERW1070AJZZ	V	Worm Gear	AD
45	NGERW1066AJZZ	V	Worm Wheel Gear	AD
46	NiDR-0018AJZZ	V	Idler Wheel Ass'y	AK
47	NPLYV0162AJZZ	V	Motor Pulley	AD
48	NPLYV0163AJZZ	V	Limitter Pulley Ass'y	AM
49	NROLP0131GEZZ	J	Guide Roller	AL
50	NSFTP0032AJZZ	V	Tension Pole Adjuster	AB
51	MSPRC0217AJFJ	V	Guide Roller Spring	AC
52	PREFL1011AJZZ	V	Light Guide	ΑE
53	QCNW-8022AJZZ	V	FFC for Drum Motor	AF
55	QCNW-8021AJZZ	V	FFC for A/C Head	AF
56	QPWBF5243AJZZ	V	A/C Head PWB	ΑE
57	QSOCN0605REN1	V	Socket, 6 pin	AB
58	RHEDT0036AJZZ	V	Full Erase Head	AM
59	RHEDU0088GEZZ	J	A/C Head Ass'y	AV
60	RMOTM1078GEZZ	J	Loading Motor	AP
61	RMOTN2055GEZZ	J	Capstan Motor	BA
62	RMOTP1151GEZZ	J	Drum Drive Motor	AT
63	DDRMW0030TEX3	V	Upper and lower drum Ass'y	BU
65	QBRSK0041GEZZ	J	Drum Earth Brush	AD
66	XBPSD26P05J00	V	Drum Drive Motor	AA
			Mounting Screw (SW2.6P+5S)	
67	PGIDC0056GEFW	J	Drum Base	AL
68	QPWBF5468AJZZ	V	PWB(LDG Motor)	AE
69	QPLGZ0292GEZZ	Ĵ	Socket(LDG Motor)	AE
70	MSPRC0223AJFJ	V	Azimuth Spring	AC
71	MSPRC0224AJFJ	V	Height Adjusting spring	_
			5	-

## **SCREW, NUTS AND WASHERS**

201	XBPSD26P08000	V	Screw 2.6P+8S A/C Head	AA
202	LX-HZ3082GEZZ	J	WSW2.6+6 (AC)	AD
203	XHPSD26P06000	V	Screw, C2.6P+6S	AA
			(For Capstan Motor)	
207	XHPSD30P08WS0	V	Screw, C3.0P+8S	AA
			(For Drum Base)	
208	XRESJ30-06000	V	È-Ring, E-3	AA
209	XWHJZ31-03052	V	Washer, W3.1-5.2-0.3	AC
210	XWHJZ31-04052	V	Washer, W3.1-5.2-0.4	AC
211	XWHJZ31-05052	V	Washer, W3.1-5.2-0.5	AC
212	XWHJZ31-06052	V	Washer, W3.1-5.2-0.6	AC
213	XWHJZ31-07052	V	Washer, W3.1-5.2-0.7	AC
214	PSPAP0009AJZZ	V	Reverse Guide	AB
			Adjusting Nut	
216	LX-WZ1041GE00	J	CW 2.6-6-0.5 CAM	AA
218	XBPSD30P08J00	V	Drum Base Mounting	AA
			Screw (SW 3P+8S)	
219	LX-WZ1098GE00	J	CW 2.6-4.7-0.5 RED	AB
220	LX-BZ3096GEFD	J	Tilt Adjusting Screw	AA
221	XBPSD26P06000	V	Azimuth Adjusting Screw	AA
			2.6+6S	
222	LX-BZ3197GEFD	J	Screw (A/C Head)	AD
223	XWHJZ31-08052	V	Washer, W3.1-5.2-0.8	AC

# **CASSETTE HOUSING CONTROL PARTS**

Description

Code

Part No.

Ref. No.

300	CHLDX3081TEV2	V	Cassette Housing Control Ass'y	AX
301 302 303	LANGF9592AJFW LHLDX1028AJ00 LHLDX1032AJ00	V V V	Upper Plate Frame (L) Frame (R)	AL AH AH
304	LHLDX1030AJZZ	٧	Holder (L)	ΑE
305 306	LHLDX1031AJZZ MLEVF0469AJFW	V	Holder (R) Proof Lever (R)	AE AE
307 308	MLEVP0281AJ00 MSLiF0076AJFW	V V	Door Open Lever Slider	AD AK
309	MSPRD0151AJFJ	V	Proof Lever (R) Spring	AB
310 311	MSPRD0166AJFJ MSPRP0175AJFJ	V V	Drive Gear (R) Spring Cassette Spring	AE AE
312	MSPRT0381AJFJ	V	Double Action Spring	AC
313 314	NGERH1278AJZZ NGERH1309AJZZ	V V	Drive Gear L Drive Gear R	AE AE
315	NGERR1008AJ00	٧	Double Action Rack Gear	ΑE
316 317	NGERR3005AJFW NSFTD0041AJFD	V V	Drive Angle Gear Main Shaft	AG AH

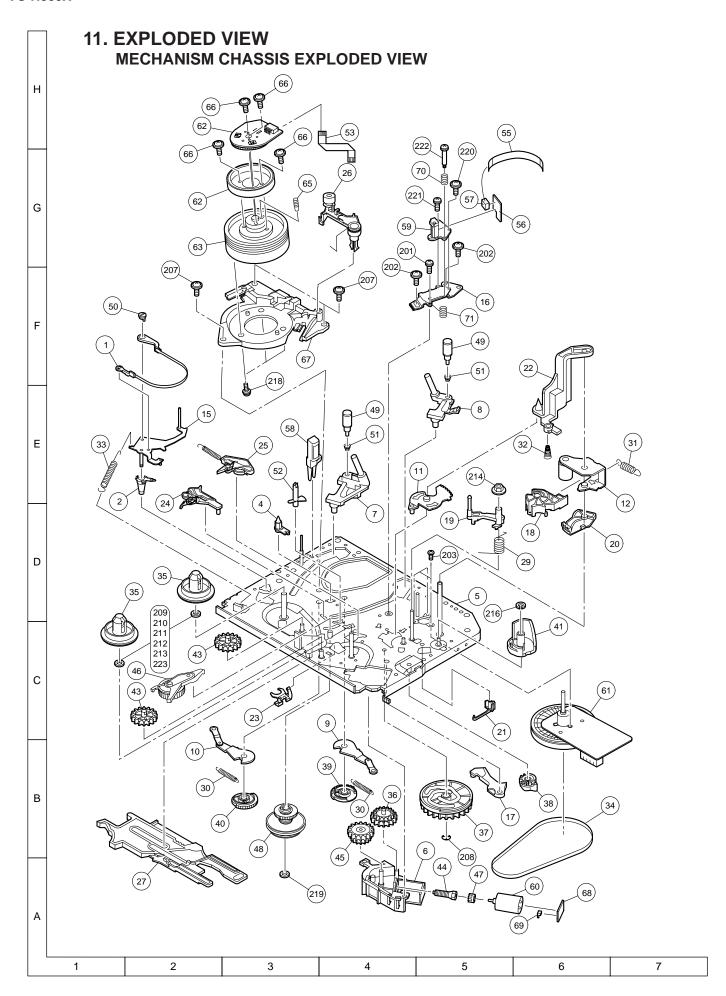
### **CABINT PARTS**

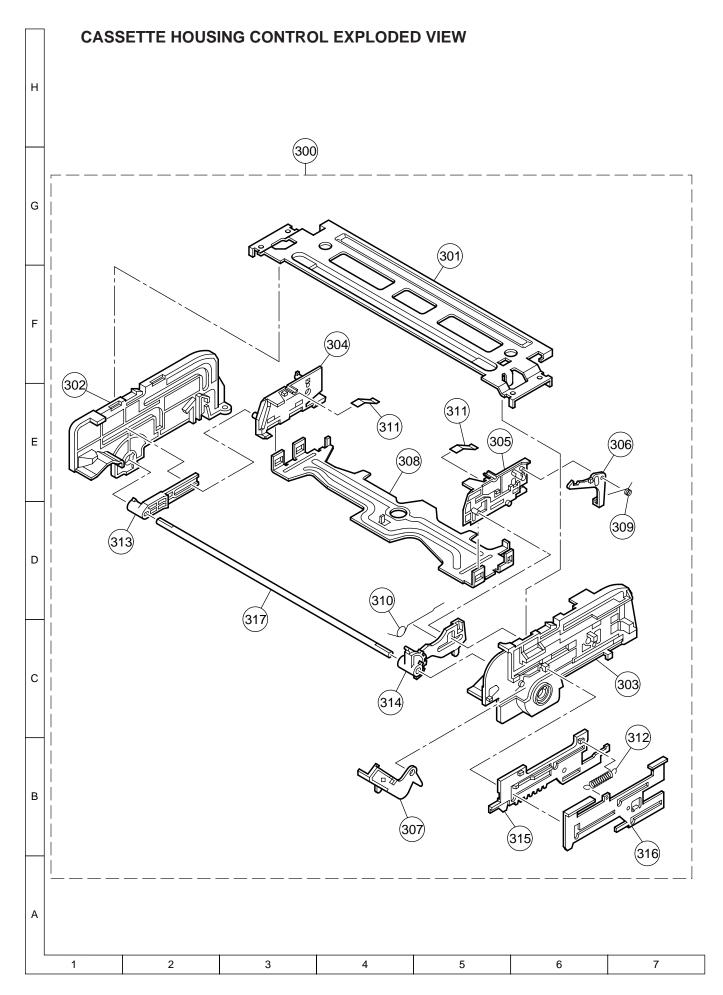
600	CCABA3119TEV1	٧	Top Cabinet Ass'y	AV
601	GCABB1214AJKZ	V	Main Frame	AP
602	GCOVA2141AJZZ	V	Antenna Terminal Cover	ΑE
603	LX-HZ3101GEZZ	V	Screw	AB
604	LANGK0185AJFW	V	Top Cabinet Angle (R)	AF
605	LANGK0184AJFW	V	Top Cabinet Angle (L)	ΑE
606	LHLDZ2044AJZZ	V	F AV PWB Holder (L)	AD
607	LHLDZ2045AJZZ	V	F AV PWB Holder (R)	AD
609	XEBSD30P12000	V	Screw	AA
610	LX-HZ3098GEFF	V	Screw	AB
611	XEPSD30P14XS0	V	Screw	AB
612	XJPSD30P10WS0	V	Screw	AA
613	PGUMS0026AJZZ	V	Foot Felt	AB
614	PSLDM4551AJFW	V	H/A Shield	ΑE
615	LHLDZ2073AJZZ	V	DG Holder (T)	AF
616	LHLDZ2046AJZZ	V	DG Holder (B)	ΑE
617	LX-HZ3087GEFN	V	Screw	AB
618	LHLDZ1962AJ00	V	Sensor LED Holder	AD
619	LHLDP1089AJ00	V	LED Holder	AC
620	LHLDZ2056AJZZ	V	AV Jack Holder	ΑE
621	TLABM4110AJZZ	V	Model Label	AD
622	PSLDM4566AJFW	V	Shield	AD
623	GBDYU3111AJFW	V	Bottom Plate	AM
624	XHPSD30P06WS0	V	Screw	AA
625	LX-HZ3047GEFF	V	Screw	AA
626	XHPSD26P06WS0	V	Screw	AA
627	LHLDZ2084AJZZ	V	Holder	AF

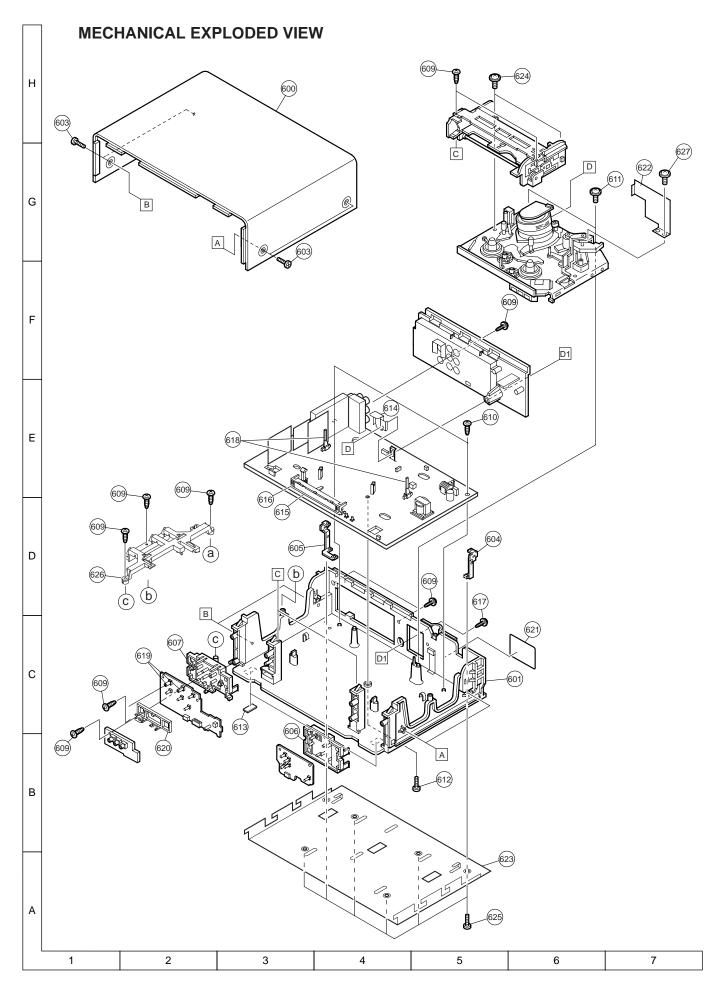
### **FRONT PANEL PARTS**

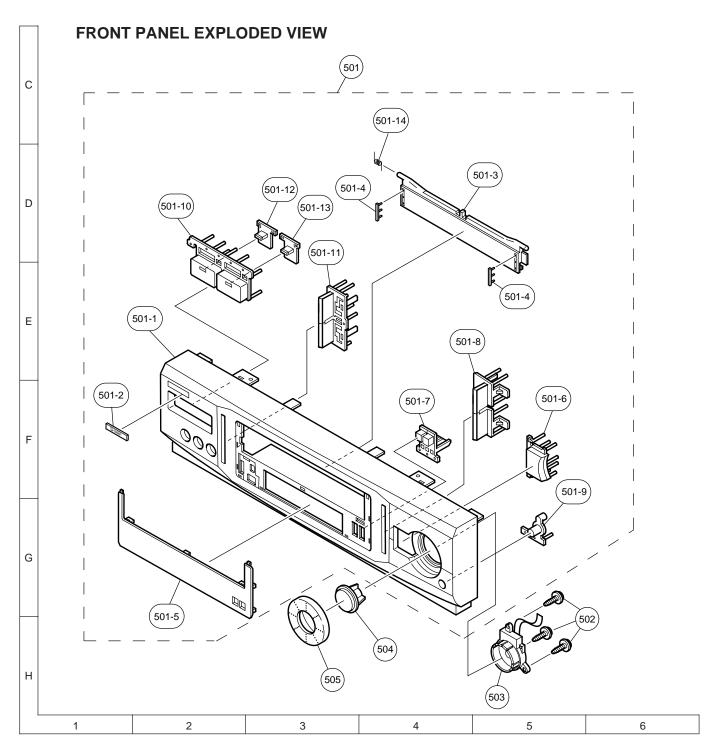
501	CPNLC2651TEV1	V	Front Panel Ass'y	ΑZ
501-1		-	Front Panel	_
501-2	HBDGB3032AJSA	V	SHARP Badge	AL
501-3	HDECQ2061AJSA	V	Cassette Flap	AL
501-4	HDECQ1914AJSA	V	Cassette Flap Dec.	AD
501-5	HDECQ2065AJSA	V	Window Dec.	AH
501-6	JBTN-2980AJSB	V	Button, STOP	AD
501-7	JBTN-2898AJSA	V	Button, MENU	ΑE
501-8	JBTN-2955AJSA	V	Button, CH	ΑE
501-9	JBTN-2900AJSA	V	Button, REC	ΑE
501-10	JBTN-2981AJSA	V	Button, TIMER	
501-11	JBTN-2954AJSA	V	Button, POWER	ΑE

Ref. No.	Part No.	*	Description (	Code	Ref. No.	Part No.	*	Description	Code
501-12 501-13 501-14 502 503 504 505	HDECQ1908AJSA HDECQ1909AJSA MSPRD0103AJFJ XEBSD26P08000 QSW-Z0071GEZZ JBTN-2972AJSA JKNBK1110AJSD	V V V V		AE AB AA AM AE AE					
	SUPPLIED A	CESSORIES							
	QCNW-0323AJZZ TiNS-3634AJZZ RRMCG1207AJSA	V	75 ohm Coaxial Cable Operation Manual Infrared Remote Control Unit	AK AG AX					
AC	CCESSORIES (NOT TGAN-0068PEZZ		PLACEMENT PARTS) Guarantee Card	_					
PACKING PARTS (NOT REPLACEMENT ITEM)									
	SPAKC4164AJZZ SPAKX1058AJZZ SSAKA0001AJZZ SPAKP0030AJZZ TLABK0005AJZZ		Packing Case Packing Foam Polyethylene Bag Foam Bag No. Label						

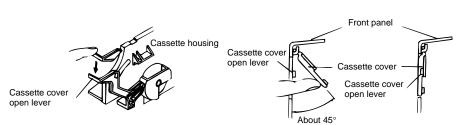






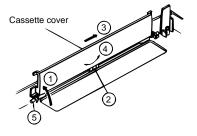


#### PRECAUTION ON FRONT PANEL SET-UP



Before attaching the front panel in position, make sure that the cassette cover open lever is in its right place (lower-most). If it is out of position, push it down with a finger. Keep the cassette over about 45° open and make sure that the cassette cover open lever is between the front panel and the cassette cover. Now fix the front panel in place.

Do not mount the front panel with the cassette cover tilted too open. Otherwise the cassette cover might wrongly run on the cassette housing.



 $Removing the \, cassette \, compartment \, cover.$ 

- Open the cassette compartment cover fully.
- Remove the center positioner.
- 3 Slide the cover to the right.4 Slightly bend the cover.5 Draw out the left-side rod.

### 12. PACKING OF THE SET

